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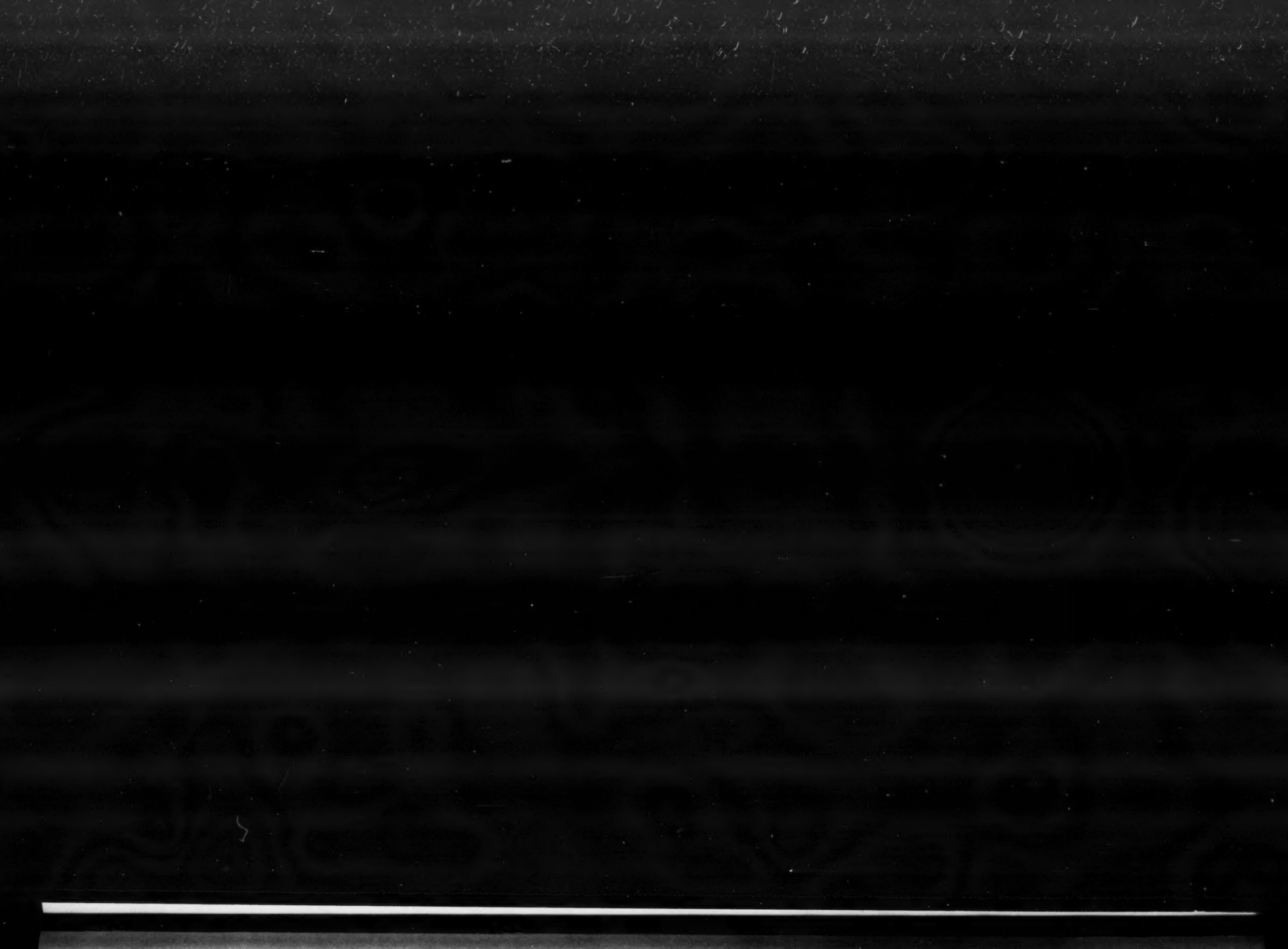

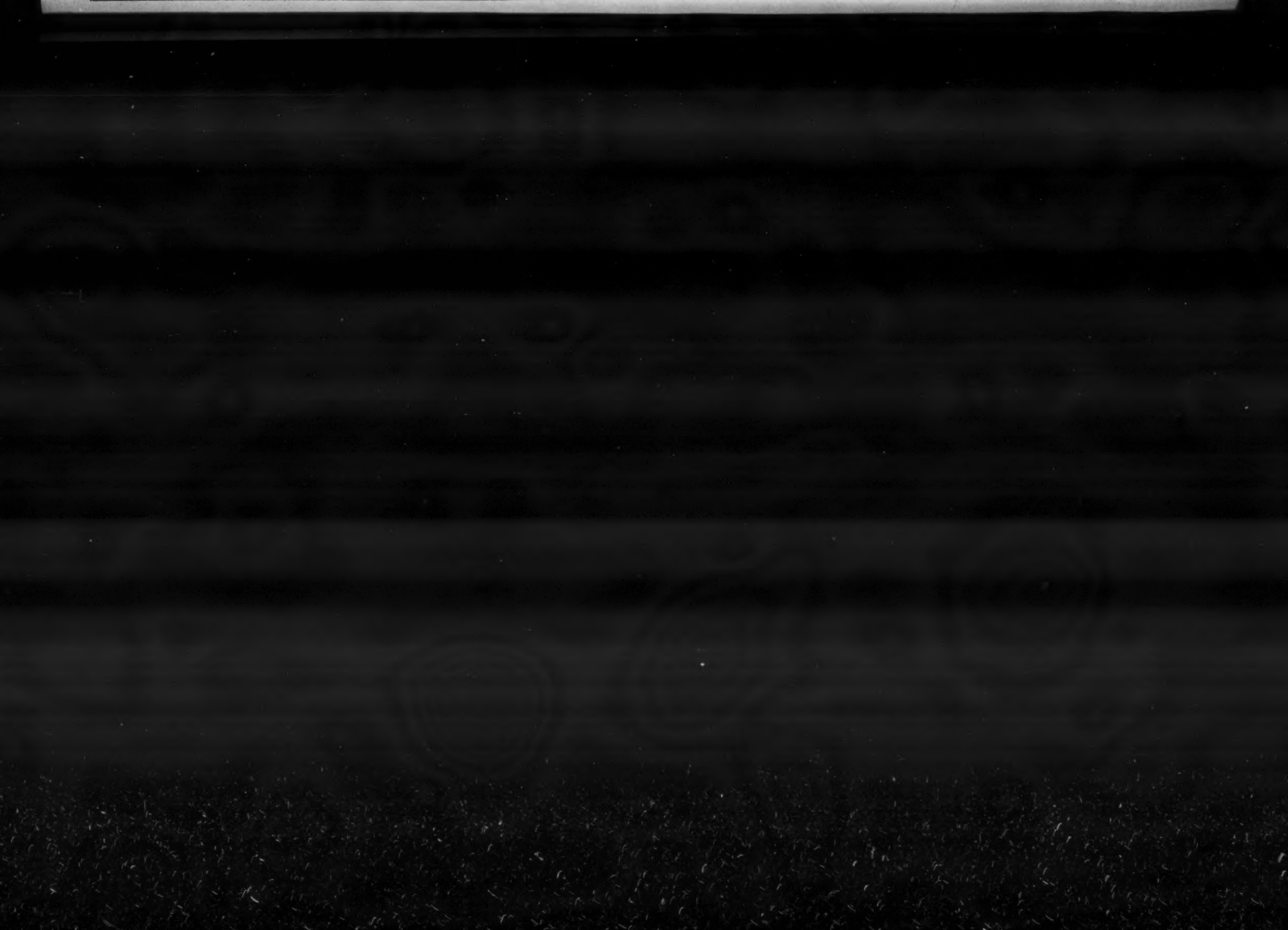

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Rates: Domestic, 1 year, $6.00; 6 months, $3.00. Canadian and foreign, 1 year, $7.00; 6 months, $3.50. All subscriptions are payable in advance

OCTOBER 17, 1935
VOL. 34, NO. 22

Extra copies of special issues are reserved for subscribers' needs and may be purchased by subscribers at the price of 50 cents per copy

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Operators Busy as Output Increases

By ANDREW M. ROWLEY

CALIFORNIA OPERATORS and refiners have made little noticeable progress in solving their problems of high production and resultant low prices but, so far as can be ascertained, the situation along the Pacific Coast has not as yet affected conditions elsewhere in the country. Ground seemed to have been lost last week in efforts to bring crude oil production in California down to allowables, further difficulties at Kettleman Hills hiking production there to new records.

Field activity continues at a high level. Wildcatting in Kansas is extending over wide areas with a test being located just a few miles south of the Nebraska line, another in the extreme southwestern part of the state. The Oxford Pool maintained its reputation for large producers when the Amerada and Sunray completed a well given a potential of 15,781 barrels daily.

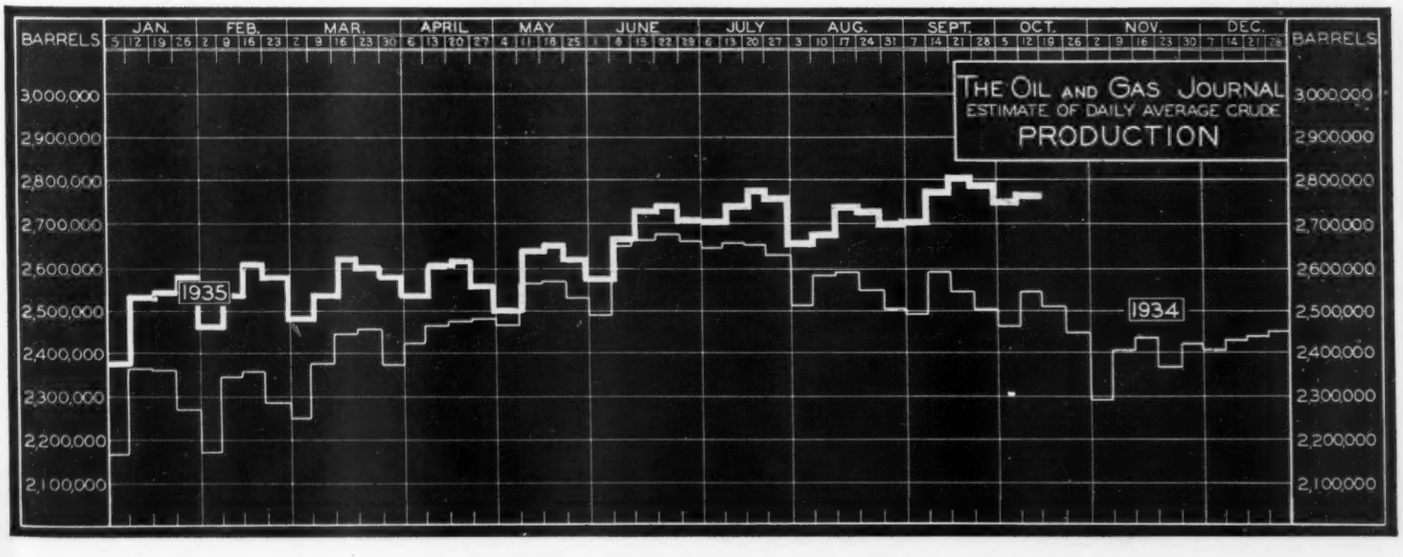
Three completions in the Rodessa Pool in Louisiana brought the number of oil producers there to seven, two of the latest being oil wells and one a large gas well. There are 14 rigs and 17 locations or derricks in the field. The latest oil wells in the field started flowing at the rate of 200 barrels, through a 1¾-inch choke and 120 barrels respectively, the former making two per cent water and b.s. and the latter being pinched in to 33 barrels an hour through a quarter-inch choke.

Production 2,828,381
Increase 67,786

Ogemaw County in Michigan is the scene of renewed activity as the result of a recent completion there which tanked 50,000 barrels of oil in two weeks in addition to an estimated 25,000 barrels lost when the well went wild. More than half a dozen projects are under way in the district. A new gas field seems to have been opened in Victoria County in the Gulf Coast while a test in East Baton Rouge Parish, Louisiana, opened a new pool.

Estimated Daily Average Production for Week Ending October 12, as Compared With Previous Week and a Year Ago

	Oct. 12	Oct. 5	Oct. 13, 1934
Oklahoma City	154,825	131,600	184,805
Seminole-St. Louis	85,000	92,050	93,850
Remainder of State	276,800	251,800	234,550
Total Oklahoma	516,625	475,450	513,205
East Texas	470,668	473,483	530,655
West Texas	154,947	147,658	138,773
North Central Texas	84,739	93,043	85,048
Texas Panhandle	51,444	59,050	53,425
East Central Texas	44,707	43,954	44,127
Gulf Coast—Texas	198,298	190,392	163,025
Southwest Texas	61,394	61,383	57,524
Total Texas	1,066,197	1,068,963	1,072,577
Kansas	147,225	143,450	120,575
North Louisiana	28,305	27,635	23,735
Gulf Coast—Louisiana	122,492	122,197	76,326
Total Louisiana	150,797	149,832	100,061
Arkansas	30,885	30,185	30,645
Eastern Fields	104,400	103,000	103,000
Michigan	54,962	53,035	30,801
Rocky Mountain area	113,290	113,680	95,960
Santa Fe Springs	54,500	54,400	37,500
Long Beach	78,350	75,750	66,750
Mountain View	33,250	36,250	7,000
Kettleman Hills	94,250	92,500	60,750
Remainder of State	383,650	364,100	310,000
Total California	644,000	623,000	482,000
Total United States	2,828,381	2,760,595	2,548,824



The Bulletin Board

GOVERNOR LANDON of Kansas, practical oil man, analyzes the situation of the oil industry and the possibilities under the interstate oil compact. He believes that if oil men and the states co-operate the outlook is most promising, especially emphasizing attention on administration.

RUSSIAN SURPLUS oil may be purchased by Anglo-American companies for distribution in world markets, removing a disturbing influence due to the use of Soviet exports to establish credit abroad. If negotiations succeed outcome will open market for American oil equipment.

PRODUCTION PROBLEMS and their scientific solution was the basis of prepared papers and discussion at the fall meeting of the Petroleum Division of the American Institute of Mining and Metallurgical Engineers at Houston, Texas.

ITALIAN CONTROL of Mosul Oil Fields in Iraq is denied by secretary of company in which the British originally owned 50.05 per cent. The Italian government oil company, A.G.I.P., is now credited with the largest stock ownership and representation on board of directors.

CRUDE RUNS to refineries in the Mid-Continent during the month of October are being reduced by 17,500 bbls. daily according to estimates of refiners in that area. A large part of this reduction in schedules is due to East Texas refiners curtailing their daily runs to stills.

CALIFORNIA adjustment seems destined to be indefinitely delayed by an intensification of chaotic marketing conditions resulting in a further lowering of gasoline prices and another breach between operators in the Kettleman Hills Field.

ORDOVICIAN REPORTED logged in western Crane County, Texas, wildcat higher than picked up in Gulf Production Co.'s No. 103 McElroy over the line in Upton County.

RODESSA FIELD reported two good oil completions and also a 92,000,000-foot initial gas well in an outpost east of the producers north of Rodessa townsite. It had a light spray of oil and adds strength to the belief the field may extend northeast.

RECONDITIONING of nearly 50 miles of 3-inch gasoline line in the field has just been completed by Magnolia Pipe Line Co. from the Luling refinery to San Antonio, the first extensive undertaking on a small sized line of that character.

NATURAL GAS DEPARTMENT sessions at the annual meeting of the American Gas Association, held at Chicago, stressed the need for increasing the market for natural gas. William Moeller, Jr., was chosen chairman of the department.

WILDCAT in Archuleta County, Colorado, swabbed 100 bbls. in five hours. Continental Oil Co.'s No. 3 Hoye on the South McCallum Dome, Jackson County, succeeded in penetrating the gas sand yielding carbon dioxide gas mixed with oil.

INTERSTATE COMPACT Commission session at Oklahoma City laid the groundwork for practical application of the compact, appointing committees to study conservation, co-ordination, consumption and exports and imports.

EAST TEXAS overproduction reported down to between 35,000 and 37,000 bbls. daily. Federal District Judge Bryant upholds constitutionality of Connally act.

Outlook for Oil Under State Compact As Seen by Gov. Landon

By Andrew M. Rowley

If oil men and the state governments of oil producing states co-operate in the solution of mutual problems and if oil producing states take advantage of opportunities offered them under the Interstate Compact to stabilize this business, the outlook of the petroleum industry is most promising in the opinion of Governor Alf M. Landon of Kansas.

It is Governor Landon's belief that, "The oil industry and state officials at the present time should use all of their influence to make the Interstate Compact work and see if we cannot solve our own problems through it. I can see a lot of hope in it, but like many other things, it depends entirely on the attitude of the men who are on the administrative end for the compacting states. An earnest effort to conserve our natural petroleum resources could be carried on under that compact. Any law to be effective depends upon its administration. Too often our whole attention has been centered on obtaining legislation and not enough on the administration of it. This is a fundamental weakness in our present day attitude. The Interstate Compact for the oil industry does not go as far as I would have liked it to go, but it does provide a vehicle which with vigorous support and the proper administration on the part of the oil producing states should work great benefit."

Few practical oil men find inclination or time to become actively interested in public affairs to the extent of serving in major elective offices. Four have been chosen governors of their states in recent years, Gov. White of Ohio, Gov. Sterling of Texas, Gov. Marland of Oklahoma and Gov. Landon of Kansas. Governor Landon is now serving his second term, the only western state executive of his party to be re-elected in 1932, a fact which has caused him to be mentioned as a possible presidential nominee. Believing his views on oil problems would be of interest to the industry The Oil and Gas Journal obtained the accompanying interview.

Governor Landon's life so far has been linked with the oil business. His father was a producer in Bradford, Pa. The governor has producing oil properties in Oklahoma and Kansas. He is what is styled an independent oil producer.

While reluctant to discuss Federal legislation, Governor Landon said:

"There is no use of the petroleum industry at this time worrying about possible Federal legislation because it is plainly evident that the next Congress will not consider any legislation affecting the petroleum industry unless we have a debacle in the industry this winter. I mean a complete collapse in regulation and the attendant waste which always goes with a collapse in price, and if the oil producing states show their inability to control this great natural resource. Otherwise, I do not think Congress will adopt any national legislation affecting this great natural resource. It is entirely up to the individuals and the states now, and, as long as the Interstate Compact works satisfactorily, there is no prospect of additional Federal legislation along any lines."

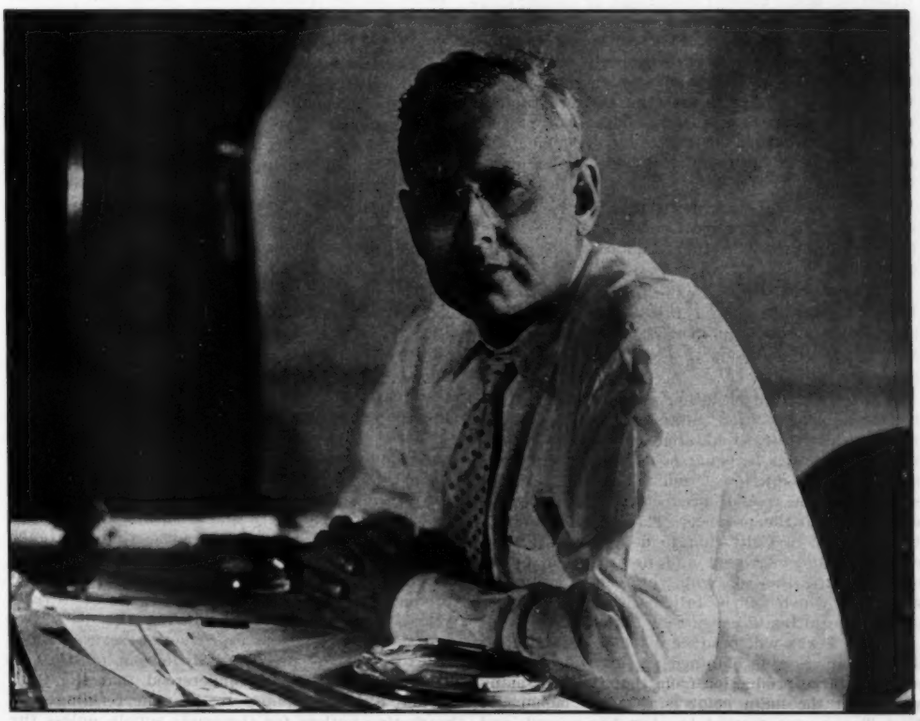
Conservation of our natural resources and the prevention of waste of natural gas is uppermost in the mind of the governor of Kansas. In this connection, he said:

"I am a strong advocate of conservation in the petroleum industry. Probably since the beginning of the industry there has been an excessive waste of natural gas in the production of oil. This waste of natural gas not only has prevented a greater ultimate recovery of crude oil but it has prevented many communities adjacent to oil fields from benefitting from the use of this wonderful fuel at a low price. Consumers throughout the nation are vitally interested in the matter of conservation in the petroleum industry and the prevention of waste of natural gas in the production of oil is a most vital factor."

In explaining his attitude regarding Federal allocations of crude oil production, Governor Landon said:

"Because of my strong feeling for conservation of our natural resources, I was willing to support a plan for a Federal agency to prevent waste. I am strongly opposed to Federal encroachment upon the rights and powers of the states. I oppose bureaucratic control of any business. All history and records prove bureaucracies tend to expand and to spread out. Original functions as planned usually are lost sight of in the desire for greater influence. Our natural resources must be conserved, all waste eliminated and the welfare of the consumer protected. The petroleum industry has done a splendid job along these lines. Improvement in methods of operation, involving vast expenditures for equipment, have given the motorists of this country a constantly improved

ALF. M. LANDON



"I oppose bureaucratic control of any business"

quality of gasoline at a price which, according to government statistics, is shown to be the lowest of all commodities. The yield of gasoline, the chief product of the petroleum industry, from a barrel of crude oil has increased steadily. We are constantly giving more value to the motorist from our crude oil production without any increase in price to the consumer. That is true conservation. The Interstate Compact is a step in the right direction. It provides the first time for the states to get together. It is up to us to make a start and see how we can get along with it."

In the matter of gasoline taxes, Governor Landon said:

"Taxes is a subject of paramount importance to every person at this time. On taxes relating to the oil industry, I think every effort should be made to resist to the utmost of our ability the tendency to divert gasoline taxes from road purposes to other general funds. In Kansas, we are rather fortunate that we have a constitutional amendment prohibiting such a diversion. This is merely another evidence of the ability of Kansas to govern herself."

"The compact is a step in the right direction"

On the subject of withdrawals of crude oil from storage, Governor Landon expressed his attitude as follows:

"There have been large withdrawals from crude oil storage and while this is a desirable condition, the practice should not be carried to the point where withdrawals would replace orderly and scientific production. Storage which has been emptied should never be permitted to be refilled. There is no justification, under present conditions, of storing large quantities of crude oil aboveground. Naturally there are times when it is necessary to store distress oil in order to care properly for the producer, but the aboveground storage of crude oil constitutes a waste in that the lighter fractions evaporate, which is a waste, and the cost of such storage is a burden on the industry, which ultimately must be borne either by the owner or the consumer."

While stating that, naturally, he is not familiar with details or local conditions in other oil producing areas, Governor Landon said of the general outlook:

"I am optimistic as to the future of the petroleum industry. In fact, I just decided this morning to drill a couple of more wells. They probably will be small pumpers, if I get anything, but it all helps.

"The California situation seems to me to be a matter of conservation. State officials and operators in that state should realize an irreplaceable natural resource is being sold at a price under the cost of production. Crude oil should never be sold below the cost of production, plus a reasonable profit to the producer. The logical thing for the industry in California to do is to store their crude oil under ground and not bring it to the surface until the consumptive demand warrants at a price which will be fair, both to the producer and to the ultimate consumer.

"East Texas will produce a lot of oil. With orderly production as obtained at this time, we can expect a large production from that field for many years, but the main point is that the menace of East Texas as a market breaker has passed, and with the co-operation of the producers in that field and the officials of the State of Texas, I am sure the industry no longer need fear that East Texas will bring distress to the petroleum industry.

"The outlook for the oil business in Kansas is especially bright. The construction of additional pipe lines into the western end of the state, providing outlets for producers in pools which heretofore had no pipe line facilities, will be of great aid to producers, landowners and the whole area in general. Naturally it will encourage further development work in that section of the state with a resultant betterment of business conditions.

"While I am not familiar with the details of operation in Rodessa, information I have leads me to believe that field will not 'upset the apple cart.'

"The oil industry in the oil producing states has an opportunity for co-operation under the interstate compact which never before existed. Taking full advantage of this opportunity and sincerely co-operating, one with the other, to solve the problems of the petroleum industry will assure this business of self-government and the elimination of any form of federal bureaucratic control."

Overproduction in East Texas Down About 5,000 Bbls.

FORT WORTH, Tex., Oct. 14.—Overproduction decreased in the East Texas Field during the past week, since the Railroad Commission has renewed activities against overproducers. Runs to refineries in the field fell to a little over 62,200 bbls. per day from an average of 68,000 or 70,000 bbls. Overproduction of crude has been averaging between 42,000 and 40,000 bbls., but has dropped about 5,000 bbls. a day. The East Texas situation can now be considered as a healthy one, with an average of only about 2 bbls. per day being overproduced from each well, although every well is not allowed to overproduce.

Continuation of the legislative oil investigating committee until April 1, 1936, with an appropriation of $10,000 was voted by the Texas house.

Federal District Judge Bryant of Tyler held the Connally act valid in the East Texas Refining Co. case.

World Oil Stabilization Is Planned By Purchase of Soviet Exports

NEW YORK, Oct. 14.—Two major transactions involving the purchase and distribution of petroleum products outside the United States are being discussed in oil circles as a result of persistent reports that actual negotiations are under way. One deal is said to involve an arrangement by which the Standard Oil Co. (New Jersey) and associated companies will purchase all the Russian oil supplies in excess of domestic requirements.

The second plan calls for a pooling arrangement by which the Standard of New Jersey, Royal Dutch-Shell and Anglo-Iranian Oil Co., Ltd., will provide an outlet for up to 20,000 bbls. daily of the new production of the Standard Oil Co. of California obtained from its concession on Bahrein Island in the Persian Gulf. The latter transaction was first reported last month. At that time the writer was assured by an executive of one of the interested companies that no contracts had been signed. Discussion of a plan to provide an outlet for the Bahrein Island production was conceded, with many of the details of the agreement not worked out at that time.

The two moves are considered a logical method of bringing about more stable conditions in foreign operations. It is said that the Russian deal, if consummated, will involve the advancement of funds by purchasing companies in order that the Soviet oil regime can purchase equipment needed in all phases of oil operations.

Inability to buy equipment needed in the oil fields and refineries due in part to the collapse of the trade agreement entered in with the United States is said to have worked a hardship on the Soviet oil administration to the point where the country has not been able to maintain its position in world markets.

Exports from Russia this year have averaged approximately 60,000 bbls. daily, a decrease of 28 per cent from last year and a loss of about 50 per cent from the peak of the early thirties.

From the standpoint of the Standard, Shell and Anglo-Iranian companies the purchase would remove the Russian exports as a distributing factor in European and other foreign markets and provide for an orderly and economic distribution.

It has been known for some time that the Bahrein Island development would necessitate an arrangement for an outlet for a sizable crude oil production extending over a period of several years. Development work during the past two years has established a production several times in excess of the present daily output of 2,000 to 3,000 bbls. daily. It is understood that the California Standard plans to provide refining and marketing outlets for the crude supply unless the other organizations mentioned, which are the major factors in operations outside the United States, see fit to absorb the crude oil supply through their own facilities.

No official comment was available today regarding the present status of negotiations. Andrew Agnew, director and major official of the Royal Dutch-Shell interests, will arrive here from London this week.

Adjustment in California Set Back by Further Breaches

LOS ANGELES, Calif., Oct. 14.—Any hope of an early restoration of California crude oil prices which seemed in the offing last week is out of the question just now due to a further intensification of marketing conditions which resulted in lower prices for gasoline in Los Angeles and San Francisco districts together with the development of a further breach between operators at Kettleman Hills.

Crude oil production at Kettleman Hills which has been averaging around 92,000 bbls. per day for the past few weeks has passed 100,000 bbls. per day and will go still higher within the next fortnight.

Marketers are further apart today than at any time since the California price war started over a month ago. The battle right now is over the use of secondary outlets and Shell and Union have practically served an ultimatum to Richfield, General Petroleum, Associated and Standard that they propose to meet any and all prices established by secondary outlets. For several weeks the Gilmore Oil Co., a subsidiary of General Petroleum, the Rocket Oil Co., affiliate of Richfield Oil Co. and Seaside Oil Co., subsidiary of Associated Oil Co., have been distributing gasoline below the price maintained by major companies.

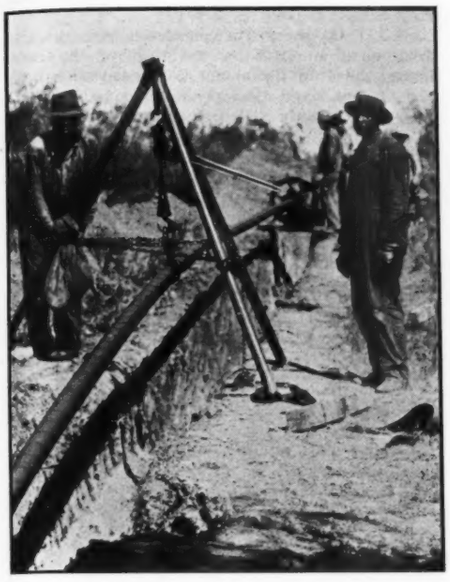
As a result of recent price cuts gasoline is selling below cost in Los Angeles district and companies having contracts specifying a 6 cent differential are taking a substantial loss on every gallon sold. Marketers were unable to iron out differences of opinion at a general meeting held two weeks ago and the breach which has subsequently widened apparently precludes the reaching of any satisfactory agreement in the immediate future.

Mr. Smoot Joins Tulsa Bank

Charles A. Smoot, son of W. C. Smoot, president of the First National Bank of Bartlesville, Okla., has been made assistant cashier of the National Bank of Tulsa. Mr. Smoot resigned an assistant cashiership in the First National Bank of Bartlesville to accept the Tulsa position. He will handle correspondent bank business.

Fifty Miles of 3-inch Gasoline Line Is Reconditioned in Field by Magnolia

By NEIL WILLIAMS



Lowering reconditioned line into ditch. Machine wrapping pipe in the background

Magnolia Petroleum Co. has just completed reconditioning its 3-inch gasoline line from its Luling refinery to San Antonio, Texas. Except for a few short skips totaling less than 3½ miles, the entire line, 49½ miles long, was raised, cleaned, recoated and wrapped, and relaid. The skips were sections previously reconditioned in repair jobs within two years.

This is one of the few small-sized lines of length, if not the first, to be reconditioned throughout in the field. Except on little repair jobs, the practice usually has been to replace 3-inch or smaller lines and remove the old pipe to a central cleaning plant for reconditioning. It has been only comparatively recently that equipment for mechanically cleaning and wrapping of small pipe on a line has been available, and in view of the difficulties and efficiency of hand work reconditioning of such lines in the field previously was not considered justifiable.

Reconditioning of this line was under the direction of the refining department of Magnolia Petroleum Co. Except the welding, which was done by the company's own crews, all work was contracted by R. L. Stuart, Inc., of Beaumont, Tex. Recently developed, light weight, traveling type cleaning and wrapping machines facilitated the work.

Work was started on the line at a point near Seguin, about 30 miles east of San Antonio, and that portion between those places was completed first. Then the remaining portion eastward from Seguin to Luling was done.

Laid Five Years

The line was laid approximately five years ago and except for the few short stretches, mainly creek crossings, which had been taken up for repairs within two years, it had never been out of the ground. While some sections of the pipe still were in fair condition, many were affected badly by exterior corrosion. Cuts made at various points indicated practically no interior corrosion.

When originally laid, the line was protected with one asphalt coating, applied hot, and ditched to an average depth of about 3 feet. In some places the line was 8 feet or more below the surface. The reconditioned line is coated three-thirty-seconds inch thick with coal tar enamel and wrapped with asbestos felt, and has been raised to within 18 to 24 inches of the surface. It is anticipated that at the shallower depth the pipe will be in the surface formations where corrosion may not be so active.

Before reconditioning was started all gasoline was displaced with water as a safety factor and precaution against fire and explosion. Water was pumped through the line from the refinery end and held under pressure of more than 600 pounds. Pressure was released only at times cuts had to be made in the line.

The pipe was located by an electrical pipe locating instrument, and with the line accurately staked, stripping followed. This was started by hand and approximately 2,000 feet was done by this method before a ditching machine was provided. Hoists were used for raising the line, although the small size of the line made it possible for the crews to lift it by hand in many cases.

Old asphalt coating was removed by a small, light weight traveling cleaning machine equipped with revolving knives. It is a machine which rides the line, being pushed along by man power. This machine was followed by a similar machine equipped with revolving cutters and brushes which thoroughly cleaned the pipe, already stripped of the asphalt coating.

As cleaned, the pipe was inspected and checked for pits. Plans called for spot welding of all pits 14/100 of an inch deep or deeper, but in actuality the welders, to place the line in as good a condition as possible, did not limit their work to the specifications but filled holes even much smaller, doing more than was considered necessary. Half soles were welded at places badly pitted.

Doping and Wrapping

Priming crews followed the welders, and then the roping and wrapping gangs. The wrappers kept about a day behind the primers, as it was desired the primer be allowed to dry 24 hours before application of the coating. The coal tar enamel used as coating was ragged on at a temperature around 400°. Particular care was taken that the line might be covered as thoroughly as possible in one application. The coating was carefully inspected with a holiday detector, run twice as an extra precaution.

With all holidays doped, the line was wrapped, a small wrapping machine being used. Lowering of the line followed immediately behind the wrap-

Stripping of line. R. E. Clevenger, foreman of cleaning machine gangs, in foreground

Cutting old asphalt coating from pipe in reconditioning of Magnolia gasoline line. The machine is equipped with revolving knives, followed by a similar machine equipped with cutters and brushes which clean the pipe

ping machine. To raise the line to the desired level, dirt was shoveled in every 20 feet or so in piles, on which the pipe was supported while the ditch was being backfilled. Backfilling was done by conventional methods.

Ed C. Plumly (left), Magnolia Petroleum Co., Beaumont, Tex., and J. C. Spradley, superintendent for R. L. Stuart, Inc., contractor on Magnolia Petroleum Co.'s Luling-San Antonio gasoline line

The right of way is through rolling country, but other than a few "canyons," one river and a few creek crossings the terrain presented no particular difficulties.

Plans of the company call for the application of cathodic protection to this line if needed. A careful study will be made of the line to determine any electrolitic action, and at hot spots wind-driven generators probably will be installed.

Fast, Comfortable Trip Assured Those on Journal Special

Train equipment of the highest type throughout the country is being gathered by the Santa Fe Railroad to be used for The Oil and Gas Journal's special train to the American Petroleum Institute's convention in Los Angeles, November 11-14. Reservations for the special continue to exceed all expectations, oil company executives and officials seeming to prefer this route as it offers the fastest time between Chicago and Los Angeles and assures everyone on the train of a comfortable, pleasant trip without side trips or other diversions which would extend the journey. There seems to be a strong desire to utilize as little time as possible in getting to Los Angeles. For those who desire to make side trips, these are being arranged on the return from California.

Summer excursion tickets to Los Angeles will be on sale until November 10 with a final return limit of November 30. The various passenger associations have granted members of the Institute a special round trip fare of one and one-third fares on the identification certificate plan. These tickets have a limit of 30 days from date of departure. From some sections of the country it is cheaper to use this identification certificate plan. From other sections it is cheaper to buy the summer excursion ticket. Those making reservations on the special should check this matter with the railroad agent at point of departure.

Diverse routes are permitted on tickets sold on either basis. For instance the ticket permits going via Santa Fe and the return by way of San Francisco over any of the direct routes through Salt Lake City or Ogden, Colorado Springs or Denver.

Cars from the Twentieth Century Limited of the New York Central leaving New York at 4 p.m., November 7 will become part of The Oil and Gas Journal's special in Chicago. The special leaves Chicago at 12:30 p.m., November 8 as a section of The Chief, crack train of the Santa Fe.

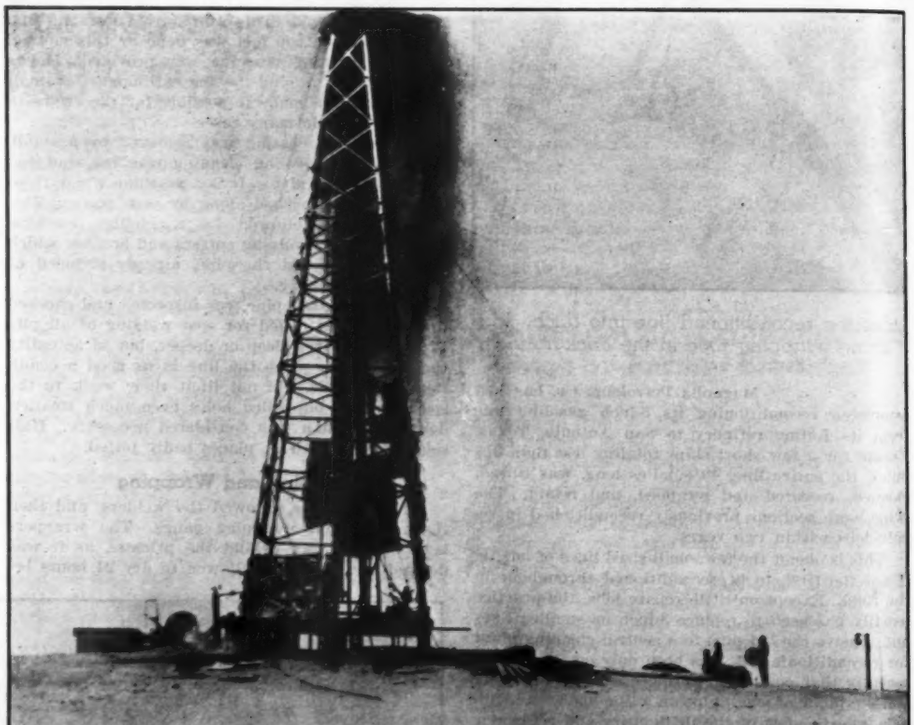
Company Denies Italian Control of Mosul Oil Fields, Ltd., in Iraq

Reports that the Italian government oil company—A.G.I.P.—had obtained control of Mosul Oil Fields, Ltd., have brought announcement from the secretary of the Mosul company, formerly British Oil Development Co., or B.O.D. Co., that "rumors current recently to the effect that control of Mosul Oil Fields and B.O.D. Co. has passed to Italian interests are without foundation. The resignations of two British directors from the boards of these companies were accepted as far back as last May, and were in no way connected with the supposed acquisition of control by Italy."

Commenting on this, the London Petroleum Times says: "In the face of this official statement one must assume that the control of the company still remains in British hands, as it was intended to do under the original concession agreement, but it is difficult to acknowledge this in view of the fact that the Italians by reason of their shareholding interest have the largest participation of any one national holding. Again, the Italians have a larger representation on the board than any other group, yet the official statement of the board—to which the Italians must presumably have agreed—is that the control of the company is not theirs."

B.O.D. Co. secured a concession from the Iraq government in 1928 on the west of the River Tirgis, the Iraq Petroleum Co.'s concession being east of that river. It was understood that B.O.D. Co. was to remain a British company with a British chairman, British interests holding 50.55 per cent; Italians, 25.45 per cent; and a Franco-Swiss group and a German group 12 per cent each.

E. A. Gibson & Co., Ltd., of London, which forwarded the accompanying photograph, reports that this well came in in August with an initial estimated at 12,000 bbls. through a 4-inch flow line.



No. 6 Qaiyarah on the property of the B. O. D. Co., Ltd. (Mosul oil fields), Iraq

Seven New Completed Wells in Southeastern New Mexico

Seven wells were completed in the Lea County, New Mexico, fields in the past week.

In the Hobbs area, Phillips Petroleum Co.'s No. 1 B. V. Culp, C NW NW Section 19-19-37e, had pay at 3,810-90 feet. The well produced 1,536 bbls. of oil and 750,000 feet of gas the first 24 hours.

In the Eunice district Shell Petroleum Corp.'s No. 2 Coleman, C SW SE Section 17-21-36, flowed 2,448 bbls. in 24 hours from pay at 3,841-3,961 feet, together with 1,250,000 feet of gas.

R. Olsen's No. 2 State, C NE SE Section 5-21-36, was good for 480 bbls. of oil initially and 500,000 feet of gas from pay at 3,775-90 feet.

Empire Gas & Fuel Co. completed No. 1 State D, C NW NE Section 32-21-36, in pay at 3,835-90 feet. It flowed 1,320 bbls. of oil and 500,000 feet of gas the first 24 hours.

Sun Oil Co.'s No. 1 H. S. Record, C NW NW Section 22-22-36, was the smallest completion of Eunice's crop for the week, as it made only 150 bbls. of oil and 400,000 feet of gas initially from pay at 3,700-3,844 feet.

In the Cooper district, Skelly Oil Co. completed No. 2 J. L. Coates, C SE SW Section 3-24-36, which produced 1,680 bbls. in 24 hours, with 2,500,000 feet of gas, from 3,520-50 feet.

In the Jal district, Phillips Petroleum Co.'s No. 1 Woolworth, C SW SW Section 6-25-37, was a disappointment. It produced 42 bbls. of fluid, 32 per cent water, through one-eighth inch choke from sand at 3,407-3,522 feet.

No completions were reported from any other southeastern New Mexico counties.

WINNIPEG, Manitoba, Oct. 12.—G. G. Serkau, who some years ago negotiated a tentative arrangement for the exchange of Canadian cattle for Russian oil, has announced resumption of negotiations with the Soviet government on similar lines. The earlier proposal was vetoed by the Canadian government.

Scientific View of Operating Problems Before Petroleum Division A.I.M.E.

By NEIL WILLIAMS

HOUSTON, Tex., Oct. 14.—Those attending the fall meeting of the petroleum division of the American Institute of Mining and Metallurgical Engineers at Houston were unanimous that in the program very important contributions had been made to the scientific study of operating problems. More than 200 engineers and geologists were present.

The meeting was opened by Harry H. Power, chairman of the petroleum division, with M. Albertson, Shell Petroleum Corp., Houston, chairman of the session, and L. L. Foley, Marathon Oil Co., Tulsa, vice chairman.

Mr. Albertson presented a paper on "A Statement Relative to Estimation of Developed Petroleum Reserves," in which he emphasized that with proration and curtailment, the industry, more than ever, is confronted with a need for more adequate estimates of developed reserves, and the necessity for developing a more accurate procedure for making these estimates. He explained how the standard method of estimation based on production decline curves had become inapplicable under curtailment, and why the volumetric method had come into being. Engineers are becoming more proficient in estimating reserves, he stated, but to obtain still greater accuracy closer scrutiny of factors determining recovery will be required, and a greater amount of information must be made available, and especially earlier in the life of fields.

Estimation of Reserves

P. P. Gregory, field chairman of the Yates engineering committee, presented a paper on "Estimation of Petroleum Reserves in Prorated Lime Fields." He brought out that estimation of reserves in lime fields is considerably more difficult than in sand fields because of the heterogeneous nature of the reservoir and the utter lack of uniformity in porosity and permeability in limestone. So far there have been no positive methods of estimating reserves in prorated flush limestone fields, he stated. In analyzing methods in estimating limestone field reserves, Mr. Gregory divided such fields into two general groups: Fields under volumetric control, and fields under active hydraulic control. While all methods have been subject to error, Mr. Gregory pointed out that estimation of fields under volumetric control presented fewer difficulties, as some estimation could be made on the basis of pressure declines.

D. L. Katz, Phillips Petroleum Co., Bartlesville, Okla., offered a paper on "A Method of Estimating Oil and Gas Reserves." He outlined a method of calculating the initial oil and gas content of reservoirs based on oil and gas production data and the properties of oil-gas mixtures. The method is entirely independent of sand volumes and formation porosities, but, Mr. Gregory stated, is applicable to present problems. He told of its application to the Oklahoma City Wilcox zone. In the method, the deviation of reservoir gases from ideal gases is an important factor in the calculation of initial crude. Mr. Gregory stressed the need of gas measurements on producing oil fields.

Another paper which aroused considerable interest was "Active Oil and Reservoir Energy," prepared by Ralph Schilthuis, Humble Oil & Refining Co., published in this issue of The Oil and Gas Journal.

Formation Study

The second session was presided over by T. V. Moore, Humble Oil & Refining Co., and D. M. Collingwood. The first paper was prepared by F. B. Plummer and R. B. Newcome, Jr., of the University of Texas, and was read by the former. Mr. Plummer described experiments he had made to determine the effects of acid on the permeability of various core samples. W. K. Lewis, Massachusetts Institute of Technology, Cambridge, who followed with a paper on "Structures of Clay Gels," described the action of clay particles in the formation of gels.

Insoluble Residues

In a paper on "Insoluble Residue Methods and Their Application to Exploitation Problems," prepared by G. E. Burpee and W. L. Wilgus, production department, Shell Petroleum Corp., Wink, Tex., what had been done by Shell in working out the stratigraphy of the Hobbs and Eunice Fields by analyses of insoluble residues was explained. By analyses of insoluble residues of well cuttings correlations had been established which proved of great value to orderly development and to corrective programs. The procedure was simple and inexpensive, the necessary information being worked up from a set of drill cuttings in minimium time. Results established a relationship between permeable oil, gas and water zones and correlatable lithologic horizons within the productive formation. This had facilitated determination of formation packer points for shutting off water-flooded sections, and had facilitated acidizing of individual productive layers.

HARRY H. POWER
Chairman Petroleum Division, A.I.M.E.

A paper on "Salt Water—Its Value, Control, Disposal and Cost," by H. K. Arnold, Humble Oil & Refining Co., and a member of the antipollution committee in East Texas, discussed the methods proposed for disposal of salt water in East Texas, and recommended that the most feasible solution would be not to produce the water. Mr. Arnold has been a consistent advocate of plugging back wells gradually as water encroaches.

The Friday afternoon program was presided over by F. B. Plummer, University of Texas, and Eugene A. Stevenson, secretary-treasurer of the petroleum division. Papers presented included "Electrical Logging of Formations Concurrent with Drilling," prepared by J. C. Karcher, Geophysical Research, Inc., Dallas, and read by Eugene McDermott; "Review of Plugging Back Methods," by Claude P. Parsons, Halliburton Oil Well Cementing Co.; "Water Flooding," by G. H. Fancher, York State Oil Co., Caney, Kans.; and "Investigation and Determination of Surface Tension and Specific Gravity of Crude Oil Under Reservoir Condition," by M. W. Strong, Anglo Persion Oil Co.

Cementing Methods

Mr. Parson's paper paid particular attention to plug back cementing methods. It occasioned a discussion of the advantages of reverse returns. Mr. Fancher discussed the feasibility of water flooding practices in Mid-Continent fields and expressed the opinion such methods would come into increasing usage. The application will be attended by many more problems than in eastern fields, he added. Adoption of water flooding, he said, will be governed by various factors, such as legal angles, economical advisability and mechanical practicability. He also discussed the possibility of using salt water in areas where other water is not readily available.

The closing session was in charge of W. E. Hubbard, Humble Oil & Refining Co., as chairman, and Paul Weaver, Gulf Production Co., vice chairman. Papers included "Conservation and Economics," prepared by R. D. Parker, consulting engineer, Austin, and read by William F. Knode, his partner, of Corpus Christi; "Acre-Foot Yields of Texas Gulf Coast Oil Fields," Alexander Deussen, consulting geologist, Houston; "Producing From Bottom of Reservoir by Setting Casing Deep, Using Shot Perforation Method, and Retreating Upward as Successive Layers Are Exhausted," prepared by E. R. Smith, district representative of Lane-Wells Corp., Houston, and read by L. L. Foley, Marathon Oil Co., Tulsa; "Kettleman Hills Subsurface Pressure Survey," prepared by Wentworth Osgood, but presented by C. V. Millikan, Amerada Petroleum Corp., Tulsa, and "Experiments on the Vertical Flow of Gas Liquid Mixtures in Glass Pipes," J. E. Gosline, Standard Oil Co. of California.

Mr. Gosline was not present but the paper was summarized by T. V. Moore, Humble Oil & Refining Co. It described observations made of fluid and gas flow under various conditions as demonstrated in experiments made in glass tubes.

Conservation Discussion

Mr. Parker's paper dealt with economical factors and phases associated with conservation. A discussion of the paper by Earl C. Oliver of Ponca City followed. Mr. Deussen took exceptions to calculations made previously of acre yields of Gulf Coast fields, as too high. He thought previous methods of calculating these yields, based on the amount of screen set in wells, were not representative of true conditions, and recommended calculations be based on the actual sand thicknesses. He pointed out that in Gulf Coast completion practices only small amounts of sands usually were taken in.

Mr. Osgood's paper, discussed by Mr. Milliken, narrated the history of development of the Kettleman Hills Field in respect to flowing and pressure conditions.

Henry A. Buehler, head of the Missouri State Geological Survey, and president of the Institute, was called upon and told of the growth which had been made by the Institute, the work being done, and the advantages offered members. A. B. Parsons, secretary, also made a short talk. Harry H. Power, chairman of the petroleum division, announced plans were being made for holding the 1936 general meeting at Mexico City in November.

Natural Gas News

William Moeller, Jr., Is Elected Natural Gas Chairman

CHICAGO, Oct. 14.—The field of greatest possibilities and usefulness for the natural gas industry lies in the future. That was the message given the natural gas department of the American Gas Association meeting in annual convention here today. It was brought by two of the highest authorities in the industry, the retiring chairman of the department, J. B. Tonkin, Pittsburgh, Pa., and the department's new chairman, William Moeller, Jr., of Los Angeles, Calif.

Retiring Chairman Tonkin reviewed not only the developments of his term of office but the history of natural gas. He stated there is solid foundation for optimism in the future in the light of the manner in which expansion and increased output have followed depletion of fields once thought rich depositories of gas. Mr. Tonkin said the prospect of an adequate supply of gas for many years to come shows the new uses of gas can be expanded.

Mr. Moeller asked co-operation from executives in allowing officials to serve in industry projects. He said a program has been provided for the coming year to help the industry solve its day-to-day problems.

H. C. Cooper, chairman of the main technical and research committee, said that in addition to two important technical projects being completed, at least one more important technical matter was demanding attention, namely formation of natural gas hydrates at high pressures on equipment. He reported the Bureau of Mines was co-operating.

R. D. Garver, Gas Service Co., Kansas City, discussing taxation and legislation, urged an effort to obtain assistance from some government bureau to assemble data on cost bases to end the controversies between gas companies and state service commissions on valuations.

George A. Lee, Northern Natural Gas Co., reviewed the trend of discriminatory taxation and legislation against the industry. He declared, however, that despite these burdens the future of the industry was still in its own hands if it continued to live up to the motto of good service, fair rates and reasonable treatment.

Walter C. Beckjord, Columbia Gas & Electric Corp., asserted it was time for executives to interest themselves more in sales and that it is necessary to increase the load on the lines and distribution systems without increasing costs.

Building up the natural gas load and completion of several important technical projects were outstanding subjects of discussion.

Attendance was large and interest active in the papers and discussions listed on the program and in interchange of informal opinion on general aspects of the natural gas industry. The rising tide of legislation and taxation was another subject attracting much attention.

In addition to the natural gas department, every other important element in the gas industry was represented in the various sessions. These included a department for the manufactured gas division, manufacturers of equipment, industrial section, commercial activities, home service, general technical, accounting, advertising, etc.

To Increase Consumption

Perhaps the prime problem now facing the natural gas industry is increasing the consumption of natural gas. This existed as background for virtually all the developments at the natural gas department sessions. It was the basis of much discussion on the floor as well as in more informal interchange between members.

Also speaking under the general head of means of building the natural gas load were George A. Lee, general counsel of Northern Natural Gas Co., of Lincoln, Neb., and Frank Smith, president of Houston Natural Gas Co., Houston, Tex.

The natural gas industry is increasing its efforts steadily to obtain an increased demand for its product. Results cause encouragement, but they still are regarded as insufficient. Advertising allowances are being expanded and sales forces increased further. Statements of key men made it clear they are generally agreed the gas industry now has more than adequate transmission facilities for present demands and that increased use of these facilities is an essential to progress in the industry.

Technical Advance

The meeting probably will stand as a landmark in connection with two important technical accomplishments in natural gas, just now being completed after several years of work.

One is a report of the gas well deliveries committee on the gauging of gas wells by backpressuring methods. This report, nearly ready for distribution, is the climax of arduous and difficult work by this committee extending over several years. The practices which it is expected to promote and standardize will constitute a significant forward step in conservation, since the new methods will eliminate gauging wells by opening them and allowing the gas to flow. This was one of the features of the report of the main technical and research committee, headed by H. L. Cooper, chairman of Hope Natural Gas Co., Pittsburgh, Pa.

WILLIAM MOELLER, JR.
Elected chairman, natural gas department

Another feature of the technical and research committee report was the formal presentation of the news of the finishing of the gas measurement report No. 2, which is in effect a code on gas measurement through orifice meters. The association has been working on this project for 10 years. Its completion is regarded as a major accomplishment of the technical division. Both this report and the report on gauging gas wells by backpressuring comprise a vast mass of detail and are available from association headquarters, in New York City.

Election of Officers

William Moeller, Jr., vice president in charge of natural gas production and transportation of Southern California Gas Co., Los Angeles, Calif., was elected chairman of the Natural Gas Department for the coming year, and becomes automatically sectional vice president of American Gas Association, George E. Welker, president of United Natural Gas Co., Oil City, Pa., was elected vice chairman. Robert W. Hendee, president of Oklahoma Natural Gas Co., Tulsa, was elected to the managing committee.

Re-elected to the managing committee were: F. H. Brooks, vice president of Northern Gas & Pipe Line Co., Omaha, Neb.; H. L. Masser, vice president, Los Angeles Gas & Electric Co., Los Angeles, Calif.; H. L. Montgomery, general manager, Cities Service Gas Co., Bartlesville, Okla.; T. J. Strickler, vice president, Kansas City Gas Co., Kansas City, Mo.; M. W. Walsh, superintendent of distribution and construction, Louisville Gas & Electric Co., Louisville, Ky.

The following were elected members of the nominating committee: F. L. Chase, chairman of Lone Star Gas Co., Dallas, Tex.; George W. Ratcliss, Manufacturers Light & Heat Co., Pittsburgh, and T. J. Strickler, Kansas City Gas Co., Kansas City, Mo.

An interesting feature of the commercial section program was a discussion of today's selling trends by Frank Lovejoy of Socony-Vacuum Oil Co., Inc., New York.

Canadian Gas Prospects

CHATHAM, Ontario, Oct. 12.—A geological survey party headed by Dr. G. H. Crickman has completed its season's work in Alberta east of Edmonton. The party was one of several sent out this summer by the federal government to investigate potential oil and gas areas. It covered 10,000 square miles in the St. Paul, Vermillion and Saddle Lake districts. While unproductive wells have been drilled in this area at Two Hills, Vegreville and some other points, the survey disclosed the existence of several potential gas structures at Saddle Lake, in the Vermillion district east of Edmonton and west of the new Lloydminster gas field, and in the northern end of the area near St. Paul. No surface indications of oil were found, but the information secured was not sufficient to definitely negative the possibility of commercial oil discoveries. Maps and detailed reports on the area are being prepared for submission to the federal government at Ottawa.

Coutts Gas Project

COUTTS, Alberta, Oct. 5.—The Coutts Gas Co., recently incorporated under Alberta charter, will provide a natural gas service for the town of Coutts. The company plans to secure a gas supply from North Montana Utilities, build a 600-foot pipe line across the border, and construct a distribution plant. A franchise is being negotiated. Doctor Meadows and H. Darling of Coutts and M. J. Conner of Warner, Alberta, are interested in the project. G. C. Paterson of Lethbridge is attorney for the company.

Texas Law Test

AUSTIN, Tex., Oct. 14. — Attorney General William McCraw, Monday took steps to return the test of the new natural gas conservation law from federal to state courts. He filed suit for an injunction to restrain the companies which hold injunctions from violating gas conservation orders, which has the effect of staying the federal injunctions pending the state test of constitutionality of the law and legality of the orders.

Canadian Gas Production

CHATHAM, Ontario, Oct. 12.—Natural gas production from all Canadian fields in July amounted to 908,370,000 feet compared with 1,072,123,000 feet in June and 1,009,180,000 feet in July, 1934. For the seven months of 1935 the total was 13,598,305,000 feet compared with 14,836,735,000 feet in the same period last year.

Imports of mixed (natural and artificial) gas into Canada in July were recorded at 7,534,000 feet worth $4,520 compared with 7,710,000 feet worth $5,048 in June.

Gas for Port Lavaca

PORT LAVACA, Tex., Oct. 14.—Gas utility service for this city appears near, according to E. A. Steen of the Lavaca Gas Corp., who said crews are at work on the project. The gas will be piped direct from No. 1 F. Stanzel, discovery well.

Pipe Line Progress

Michigan Commission Hearing on Gas Pipe Line Projects

MUSKEGON, Mich., Oct. 14. — Eleven applications seeking permission to construct, extend or finance proposed natural gas pipe line projects which would cost in excess of $3,000,000 were considered at a public hearing before the Michigan Public Utilities Commission at Lansing. Much of the time was spent questioning Walter White, engineer of the Consumers Power Co., which has proposed to lay a $400,000 line about 60 miles long from the Millbrook-Hinton-Belvidere Townships Field on the line between Mecosta and Montcalm Counties to serve Lansing and 25 nearby communities.

Mr. White testified his company through Petroleum Transportation Co., operator of a gathering line in the new Central Michigan Field, would require about 900,000,000 feet of gas the first year and 1,600,000,000 feet the third year with a peak of 10,000,000 feet a day. The field now has an open flow capacity of about 200,000,000 feet a day from which 35,000,000 feet, or 17½ per cent, may be withdrawn under present Michigan regulations. Mr. White said his company had about half of the field's output under contract at 12 cents to the producers and 15 cents per 1,000 feet to the gathering line, or 3 cents gathering line charges. This scale would be reduced to 9 and 12 cents when field pressure drops below 300 pounds, necessitating compressors.

Central Michigan Pipe Line Co., of Lansing, entered a counter proposal for a line from other Central Michigan gas fields to Lansing. An application from Industrial Natural Gas Pipe Line Co. to finance and lay a line from similar fields to Detroit also was considered.

The Gas Corp. of Michigan, Central Michigan Pipe Line Co., Petroleum Transportation Co. and Midwest Oil & Gas Corp., also sought right to build or extend gathering lines.

Decision by the utilities commission was delayed pending a hearing Tuesday, October 22.

Gas Line from Lloydminster to Serve Saskatchewan Towns

CHATHAM, Ontario, Oct. 12.—In the Lloydminster Field, western Saskatchewan, Colony Oil & Gas Co.'s No. 3 has been located a mile east of No. 2 gasser. Colony's No. 1 in Section 25-49-27w3, was about 2 miles south of Lloydminster Gas Co.'s No. 1 and Colony's No. 2 was a mile farther south. Lloydminster's No. 1 got around 18,000,000 feet a day and Colony's No. 1 had 42,600,000 feet a day initial flow. Colony's No. 2 was somewhat smaller. The drilling so far has indicated a proven field extending several miles north and south; and plans are being made to pipe the gas to additional markets in Saskatchewan. Lloydminster Gas Co. last year piped production of its discovery well to the town of Lloydminster.

Medicine Bow Line

DENVER, Colo., Oct. 14.—The Illinois Pipe Line Co. completed its pipe line from the Medicine Bow Field in Carbon County, Wyoming, to Medicine Bow on the Union Pacific Railroad, but has not yet started running oil. The line starts in Section 26-21-79, runs east about 1 mile and northeast to Section 8-22-78, a distance of 10 miles. The line consists of double 4-inch and single 6-inch pipe. Loading racks and one 10,000-bbl. tank are being constructed at the rail head. On account of the high gravity of the Medicine Bow crude it is not planned to carry much of the oil aboveground.

To Start Crystal Line

MUSKEGON, Mich., Oct. 14.—Preparations for immediate construction of the new 140-mile Crystal, Mich., to Toledo pipe line for Simrall Pipe Line Corp. and Standard Oil Co. of Ohio at a joint cost of $1,000,000 were started last week in Michigan by the Franklin Tool Co., of Mount Pleasant, awarded the contract for the northern state's largest oil line.

Most of the right of way has been obtained with the rest expected under lease in time to complete the line within 40 to 60 days. Work is scheduled to start from both terminals. The main line will be of 8-inch with a capacity of 20,000 to 25,000 bbls. a day. Delbert Hewitt, superintendent of the pipe line construction division of the Simrall company, and J. F. Wilson, pipe line superintendent for Standard of Ohio, have been detailed to work with Gene Harper and J. W. C. McKee, officials of the Franklin Tool Co.

Valley Line Completed

SAN ANTONIO, Tex., Oct. 14.—The first crude from the Samfordyce Field in Hidalgo and Starr Counties was charged to the newly completed Valley Pipe Line, last week. The 88-mile line connects the field with deepwater transportation at Port Isabel, near the mouth of the Rio Grande River. Storage in the field tanks has reached 100,000 bbls. of oil. Much of the oil will be loaded and shipped immediately to fill orders from the Italian government. Italy took two 60,000-bbl. shipments of Samfordyce crude about two months ago.

The new $325,000 pipe line will handle 6,000 bbls. per day under the present pumping facilities. Midway along the line, allowance is made for the future installation of a second pumping station, which will increase the line capacity. At the Port Isabel terminal, a 5,000-bbl. refinery is under construction by the Coastal Refineries, Inc.

Lafitte Field Line

HOUSTON, Tex., Oct. 14.—The Texas Pipe Line Co. awarded contract to the Apex Construction Co. of Houston for a 26-mile 6-inch welded pipe line from the Lafitte Field in Jefferson Parish, Louisiana, to the town of Marrero, just south of New Orleans. The line is to be completed by December 1.

Natural Gasoline

Natural Gasoline Association Announces November Meet

This year the California Natural Gasoline Association will hold its fall meeting at the same time the American Petroleum Institute is holding its annual meeting. The program which is to be held November 11, at the Biltmore Hotel in Los Angeles, will offer subjects of interest to the attending natural gasoline men.

Dr. Gustav Egloff's discussion of making high octane gasolines out of propanes and butanes will be one of the principal papers presented at the meeting.

Another lecture, discussing how the qualities of straightrun gasolines may be improved by rectification and by using more casinghead gasoline, will be given by Dr. George G. Brown of the University of Michigan.

The program as now arranged is as follows:

8-9 a.m.—Registration, foyer, ballroom.

9 a.m.—Morning session.

Opening of meeting.

Address of welcome by President T. L. Taggart.

Chairman: E. G. Ragatz.

Dr. Gustav Egloff, Universal Oil Products, subject: "Making High Octane Gasolines Out of Propanes and Butanes."

Dr. George Brown, University of Michigan, subject: "Rectifying Straightrun Gasolines to Improve Its Qualities by Removing Iso Butane and Lighter Fractions and Using More Casinghead."

2 p.m.—Afternoon session.

Introduction, W. C. Dayhuff, general chairman, Technical Committee.

Chairman, W. W. Robinson, Jr.

W. E. Helmick, "Standards for Application of Super-Compressibility Factors in High Pressure Natural Gas Measurement."

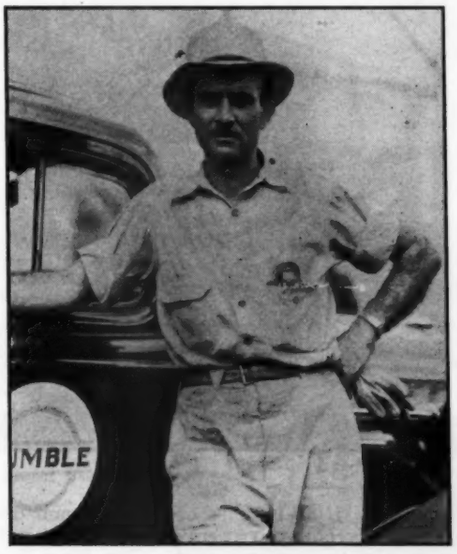
R. R. Crippon, "C.N.G.A. Reid Vapor Pressure Testing Procedure."

"Charcoal Gasoline Content Procedures."

(a) C. D. Gard, "General Problem Including Sampling Procedure."

(b) H. J. Multer, "Distillation Procedure."

P. W. Hill, "Orifice Meter Standards."



C. C. Patterson, superintendent, Humble Oil & Refining Co. gasoline plant, Conroe, Tex.

Exports of Natural Gasoline 210,000 Bbls. in August

Natural gasoline exports to foreign countries and Canada during August totaled 210,000 bbls., according to statistics compiled by the Bureau of Foreign and Domestic Commerce. While this amount represents a gain of only 17,000 bbls. over August, 1935, the difference in value of the exports amounted to $153,000.

The bulk of the export went to Spain and United Kingdom with Canada absorbing most of the remainder. The chief points of clearance were Philadelphia and Galveston, approximately two-thirds of the movement clearing through these ports. Exports clearing Sabine amounted to 35,000 bbls., thus bringing the total shipped through Gulf ports to over one-half of the total amount exported.

PURCHASERS OF UNITED STATES GASOLINE
(Barrels)

Spain	82,514
United Kingdom	75,571
Canada	48,706
Honduras	13
Brazil	1,780
Union of South Africa	1,075
Gold Coast	57
Nigeria	262
Mozambique	57
Total quantity	210,036
Total valuation	$438,694

CUSTOMS DISTRICT THROUGH WHICH CLEARED
(Barrels)

Buffalo	6,362
New York	333
Philadelphia	85,426
Sabine	35,541
Galveston	75,571
Dakota	4,009
Duluth and Superior	2,531
Michigan	262
Total quantity	210,036

Groundwork for Interstate Commission Outlined at Oklahoma City Session

Groundwork for a wide survey of the oil industry in the six states which have approved the Interstate Oil Compact was laid at Oklahoma City Friday at the second conference of the Interstate Commission, of which Governor E. W. Marland of Oklahoma is chairman.

Authority for this survey, with details of scope, was contained in a report of the coordination committee, headed by Col. E. O. Thompson, chairman of the Texas Railroad Commission. Four committees were setup and all will be functioning within 10 days, members said.

The committee on conservation is to make a study of improved methods now in use in oil and gas fields, and digest the conservation laws of the various states and their method of enforcement. Homer Hoch, chairman of the Kansas Corporation Commission, is to head the committee; other members are Colonel Thompson of Texas and Governor Marland of Oklahoma.

The committee on coordination is to ascertain the potential production and percentage of production in the compacting states; to report periodically on estimates of proven reserves and to study and recommend plans whereby the productive ability of wells may be more correctly and uniformly determined. Colonel Thompson is to head the committee, with each of the other states having a member.

The committee on consumption of petroleum and its products is to determine means of accumulating statistics, study the system used by the U. S. Bureau of Mines and other agencies. Hiram Dow of New Mexico is chairman, with Colonel Thompson and H. C. Bretschneider of Colorado as members.

The fourth committee will make a study of imports and exports and will be headed by William Bell of Illinois, with Colonel Thompson and Mr. Bretschneider.

Fact Finding

It is the intent of these committees to furnish working material for the commission as a whole, so that the various states might guide themselves in their general conservation programs.

Mr. Dow of New Mexico was particularly anxious that the Bureau of Mines method of determining consumptive demand be studied. He said it was the feeling in his state the operators had not been getting their equal share of the general market. He explained recent development in southeastern New Mexico had increased the potential production appreciably, but that the bureau's estimates reflected no increase in demand.

The by-laws defined the commission as a "fact-finding and deliberative body with power to make recommendations to the member states." They fixed headquarters for the commission at the residence of the chairman, set meeting dates on a quarterly basis, on the second Friday of each quarterly month, the next session to be December 13, 1935. Officers are to hold their positions for one year, beginning September 12, 1935, date of the initial meeting of the commission.

The representative from Kansas was selected first vice chairman and the Texas representative second vice chairman. The chairman is to designate the commission's secretary, and Governor Marland announced that Art L. Walker of Oklahoma City would be retained. Salary of the secretary is to be paid by the state of his residence.

A complicated formula was adopted in voting on questions before the commission. Section 2 of Article 5 of the by-laws says:

"All action taken by the commission shall be as the members present may elect, either by viva voce or by written ballot, taken in accordance with the following formula: (1) by the affirmative votes of the majority of the whole number of the compacting states, represented at the meeting, and (2) by a concurring vote of a majority in interest of the compacting states at said meeting, such interest to be determined as follows: Such vote of each state shall be in the decimal proportion fixed by the ratio of its daily average production during the preceding calendar half-year to the daily average production of the compacting states during said period."

It is further provided that the certificate of the Bureau of Mines shall be prima facie evidence of the daily average production.

Two short resolutions were presented; one by Mr. Bell of Illinois inviting representatives from noncompacting states and extending to them the privilege of the floor; the second by Mr. Bretschneider of Colorado calling on compacting states to abide by the Bureau of Mines estimates on demand. Both were adopted.

The latter resolution was significant in view of the fact the industry had heard an attempt would be made to set up a fact-finding agency within the commission to recommend quotas of production for the compacting states.

Governor Marland opened the way for discussion of setting up such an agency, by declaring for an engineering staff to study the conditions in the states and to make recommendations. He said: "Every major oil company has its technical men to do their guessing, so I don't see why we shouldn't have same one to do our guessing."

Colonel Thompson disagreed, as some of the states have not funds to pay their share of the expense and at the same time pointed out the Texas Commission has a working staff of engineers and geologists who are continually at work on reserves and field conditions. He suggested each state use its regulatory agency's staff to handle the work.

No action was taken on the suggestion other than to provide that state agencies would furnish their information to the various committees appointed.

Production Under Compact

First results of the compact work was cited by Tom Anglin of Oklahoma in pointing out that all of the compacting states had stayed well within the Bureau of Mines estimates of production during the four weeks ending August 31.

He pointed out that during this period the six states had been allocated 67.94 per cent of the demand for the United States, but they had produced only 63.63 per cent. He read into the records the quotas and actual daily average production as estimated by the American Petroleum Institute for the four weeks. This summary was presented by states in the following tabulation:

State—	Quota barrels	Per cent of total	Production barrels	Per cent of total
Oklahoma* ...	516,400	19.45	491,950	18.367
Kansas*	115,300	5.85	140,750	5.254
Texas*	1,062,400	40.01	1,015,250	37.397
Colorado*	4,400	.17	4,300	.164
New Mexico*..	53,500	2.04	53,350	2.028
Louisiana	129,800	4.89	144,050	5.377
Arkansas	30,600	1.15	30,300	1.131
Eastern Fields.	104,900	3.95	102,050	3.810
Michigan	39,300	1.47	45,800	1.713
Wyoming	35,300	1.37	38,150	1.424
Montana	11,300	.42	12,150	.453
California	511,800	19.28	600,750	22.424

*Designates compacting states. Illinois, included in Eastern Fields, was allowed 0.42 per cent of the total quota and produced that percentage.

Kansas went on record as favoring means of "keeping the oil in the ground" or formulating a program to discourage aboveground storage of crude. Other delegates condemned large stocks as wasteful, while Governor Marland asserted considerable steel storage in the Mid-Continent states was being cut down and sold to Japanese interests.

—Courtesy Press Bureau, J. Stirling Getchell, Inc., Chrysler Building, New York.

Dramatizing the importance of petroleum and the historic role it played in world manufacturing progress, a permanent educational exposition has been completed in the foyer of the R.C.A. Building, Radio City, New York, by the Socony-Vacuum Oil Co., Inc. Left to right: Fred Battershall, assistant to the president of the Socony-Vacuum Oil Co.; Nelson Rockefeller, and John A. Brown, president of the Socony-Vacuum Oil Co., Inc.

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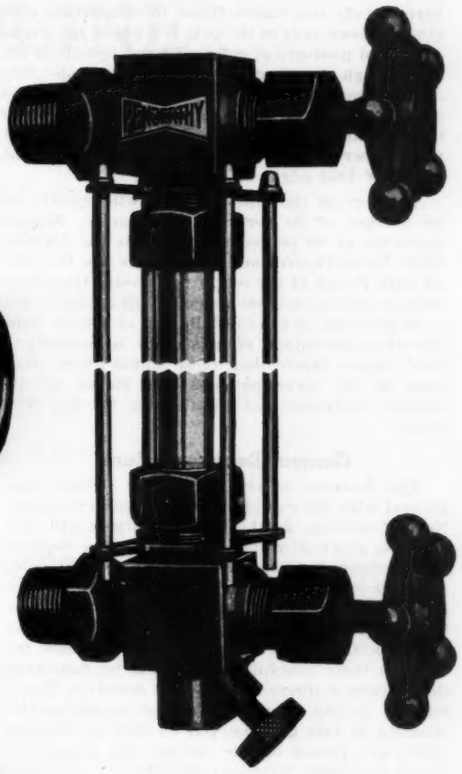

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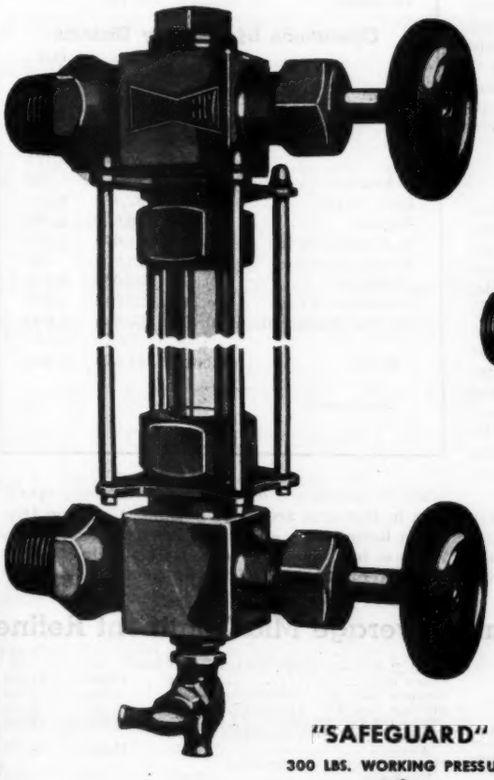

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Mid-Continent Refiners Reduce Daily Crude Run Schedules for October

By D. H. STORMONT

October crude runs to stills in the Mid-Continent will be decreased 17,500 bbls., according to estimates of refiners in that area. The estimated average daily run for this month is 523,620 bbls. as compared to 541,000 bbls. in September. Although the total of over a half million barrels daily is a higher figure in comparison with other October runs in the past few years, the stocks of refined products at refineries and terminals are low enough to allow continued high crude runs until storage is brought to normal. Estimated crude runs for the past seven months have been higher than in the same periods of 1934, so that the October increase of 23,000 bbls. over the same month of 1934 might be expected.

Refiners in the Mid-Continent will operate on an average of 50 per cent of capacity. Kansas operating at 66 per cent capacity is the highest, while North Central and East Texas are the lowest with 40 and 41 per cent, respectively. Oklahoma refiners will operate on a capacity of approximately 50 per cent, or a total daily run of 149,310 bbls. The true percentage of operations is probably a much higher figure than those stated above since some of the operating capacities stated include obsolete equipment not suitable for refining purposes.

General Decreased Runs

The decrease in crude runs for October was general with the exception of one district; namely, North Louisiana. In this area operations will continue on practically the same level as in September. Refiners for the large part are willingly holding their crude runs to a low figure so that prices on refined products might be upheld and the market kept in a firm condition. However, in some instances there is evidence of some refiners increasing their schedules to such large runs that they become a threat to the whole structure. Interrefinery buying as yet has served to reduce the amounts of this gasoline and as soon as distress stocks are placed on the market are bought by one of the larger refining companies.

The monthly decrease of 6,500 bbls. in East Texas was mostly due to small refineries shutting down and large refineries cutting their crude runs. Forty refineries are now operating in this district while 43 are closed down. Plants resuming operation in this area are Acme Refining Co., Blue Diamond Refining Co. and Ozazo Refining Co. A large increase in refining schedule is shown by the Cascade Refining Co., who will increase its daily crude runs by approximately 2,000 bbls. Kansas also showed several changes in refining schedules for October. The Vickers Petroleum Co. will cut runs 500 bbls. daily, while the Skelly Oil Co. anticipates cutting 1,000 bbls. daily from its October crude runs.

In Oklahoma curtailment is reflected in some refineries while others are adding to their runs. The Empire refinery in Ponca City reports the largest decline in the State with daily crude runs to stills 2,100 bbls. less in October than in September. Three refineries, the Wilcox Oil & Gas Co., Sun Oil Co. and Empire Oil & Refining Co., will decrease their crude runs by approximately 1,000 bbls. each. Anderson-Prichard Oil Corp. and Continental will increase their crude runs.

Refinery Construction

Several new or reconstructed refineries in the Mid-Continent are expecting to begin operation about the middle of this month, as refinery construction and modernization of cracking facilities continues on a large scale. Quite a number of plants have been allowed to run down mechanically due to the fact that in the last few years refinery conditions have been such that refiners felt large sums spend for modernization were not justified.

Solvex Refineries, Inc., plans to complete installation of a new Dubbs unit and absorption plant along with other construction on its newly purchased Gladewater plant by the middle of this month. Russell Refining Co. of Russell, Kans., also expects to have its new 1,000-bbl. plant in operation by this same time. Rodessa Oil & Refining Corp. is now reconstructing its recently acquired Cedar Grove, La., plant. Other refineries in this area should also complete their reconstruction work in the near future.

The list of plants shows less than the usual number of name changes and but few plants resuming operation. The Imperial Gasoline Co. is now operating under lease the former Star Refining & Producing Co.'s plant in Fort Worth. Another important change was the completion of the sale of the former Archer refinery of Olney to the Southland Refining Co. The plant, of 500 bbls. capacity, will be operated in connection with Southland's Olney plant.

Mid-Continent Crude Runs

Average Daily (Barrels)

(Advance estimate compiled by The Oil and Gas Journal)

	1933	1934	1935
January	399,405	448,360	426,070
February	407,125	456,619	448,810
March	423,445	465,680	451,510
April	441,000	458,220	467,765
May	470,460	457,165	466,015
June	479,987	459,908	485,015
July	525,845	477,012	494,210
August	518,510	501,750	508,960
September	526,749	499,830	541,080
October	495,756	500,755	523,620
November	481,335	500,445	.....
December	434,275	440,735	.....

Operations by Refinery Districts

	Oct. daily crude runs	Sept. daily crude runs	Oct. decr. from Sept. (bbls. daily)
Arkansas	22,220	22,350	130
East Texas	85,970	92,480	6,510
Kansas	118,690	120,690	2,000
N. Central Texas	38,940	41,670	2,730
North Louisiana	23,350	23,300	*50
Oklahoma	149,310	153,050	3,740
Southwest Texas	28,740	29,940	1,200
W. Tex.-Panhandle	56,400	57,600	1,200
Total	523,620	541,080	17,460

*Increase.

Estimated Daily Average Mid-Continent Refinery Crude Runs

ARKANSAS

Company and location—	Daily capacity	Av. daily runs— Oct.	Sept.
Berry Asphalt Co., Waterloo	2,000	970	1,100
Henry H. Cross Co., Smackover	6,000	4,000	4,000
Lion Oil Ref. Co., El Dorado	12,000	9,000	9,000
Macmillan Pet. Products Co., Norphlet	2,300	2,000	2,000
Ouachita Valley Ref. Co., El Dorado	2,500	(*)	(*)
Root Ref. Co., El Dorado	10,000	6,000	6,000
Simms Co., Smackover	3,000	(*)	(*)
Stephens Ref. Co., Stephens	750	250	250
Total	39,550	22,220	22,350

*Shut down.

KANSAS

Company and location—	Daily capacity	Av. daily runs— Oct.	Sept.
Barnsdall Oil Co., Wichita	4,000	3,200	3,300
Derby Oil Co., Wichita	5,000	5,500	4,800
Dickey Ref. Co., McPherson	2,500	1,700	1,700
Eldorado Ref. Co., Eldorado	5,000	3,500	3,500
Falcon Ref. Co., Inc., Great Bend	1,200	600	800
Globe Oil & Ref. Co., McPherson	10,000	8,000	10,000
Kanotex Ref. Co., Arkansas City	12,000	7,500	7,000
Kansas Gasoline Co., Winfield	500	40	40
Kreuger Ref. Co., Laton	150	50	50
National Ref. Co., Coffeyville	6,500	4,000	4,000
Pet. Products Co., Chanute	1,000	1,000	1,000
Phillips Pet. Co., Kansas City	15,000	12,100	12,000
Security Pet. Co., Chase	3,100	(*)	(*)
Shell Petroleum Corp., Arkansas City	20,000	17,000	17,000
Sinclair Ref. Co., Coffeyville	12,000	9,000	9,000
Sinclair Ref. Co., Argentine	9,500	7,500	7,500
Skelly Oil Co., Eldorado	23,000	16,000	17,000
Socony-Vacuum Oil Co., Inc., Augusta	16,000	15,000	14,500
Standard Oil Co. (Indiana), Neodesha	20,000	4,500	4,500
United Oil & Ref. Co., Hutchinson	1,500	(*)	(*)
Vickers Pet. Co., Potwin	3,500	2,500	3,000
Total	177,450	118,690	120,690

*Shut down.

OKLAHOMA

Company and location—	Daily capacity	Av. daily runs— Oct.	Sept.
Anderson-Prichard Oil Corp., Cyril	6,000	4,500	4,500
Associated Pet. Corp., Allen	8,000	(*)	(*)
Barnsdall Oil Co., Barnsdall	6,000	3,500	3,500
Barnsdall Oil Co., Okmulgee	10,000	3,500	3,500
Bell Oil & Gas Co., Grandfield	4,500	3,200	3,200
Black Gold Ref. Co., Oklahoma City	3,000	1,400	1,400
Century Pet. Corp., Oklahoma City	2,500	(*)	(*)
Champlin Ref. Co., Enid	16,000	6,500	6,500
Continental Oil Co., Ponca City	30,000	18,000	16,000
Crescent Ref. Co., Holdenville	1,000	(*)	(*)
Cushing Ref. & Gasoline Co., Blackwell	1,700	1,500	1,500
Cushing Ref. & Gasoline Co., Cushing	6,300	4,100	4,700
Deep Rock Oil Corp., Cushing	10,000	9,000	9,000
Eason Oil Co., Enid	5,000	2,800	2,800
Empire Oil & Ref. Co., Okmulgee	4,000	2,420	3,300
Empire Oil & Ref. Co., Ponca City	12,000	7,000	9,150
Globe Oil & Ref. Co., Blackwell	7,500	(*)	(*)
Government Ref. Co., No. 1, Oklahoma City	1,000	(*)	(*)
Government Ref. Co., No. 2, Oklahoma City	3,500	(*)	(*)
Government Ref. Co., No. 3, Seminole	800	(*)	(*)
Hanger Ref. Co., Oklahoma City	1,000	(*)	(*)
Johnson Oil Ref. Co., Cleveland	6,000	4,000	4,000
Major Pet. Products, Oklahoma City	2,000	400	400
Marathon Oil Co., Bristow	5,000	2,580	2,500
Mid-Continent Pet. Corp., West Tulsa	40,000	19,000	19,000
Monarch Ref. Co., Oklahoma City	1,000	900	900
Omar Ref. Co., Garber	8,000	2,500	2,500
Paramount Ref. Co., Oklahoma City	2,000	700	700
Peppers Gasoline Co., Oklahoma City	500	200	200
Phillips Pet. Co., Okmulgee	6,000	4,510	4,650
Pure Oil Co., Muskogee	9,000	7,700	8,000
Rock Island Ref. Co., Beckett	6,000	3,000	3,000
Sinclair Ref. Co., Sand Springs	8,000	3,200	3,200
Sinclair Ref. Co., West Tulsa	6,000	(*)	(*)
Booner State Ref. Co., Oklahoma City	700	400	400
Sun Oil Co., Yale	5,000	2,100	3,000
Sunray Oil Co., Allen	7,000	2,580	2,650
Texas Co., West Tulsa	15,000	12,000	12,000
Tide Water Oil Co., Drumright	15,000	12,500	12,500

(Continued on Next Page)

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Triangle Prod. & Ref. Co., Oklahoma City	1,500	1,200	1,100
Wilcox Oil & Gas Co., Bristow	5,000	2,420	3,300
Wirt Franklin Pet. Corp., Ardmore	4,000	(*)	(*)
Yale Oil Corp., Yale	2,000	(*)	(*)
Total	294,400	149,310	153,050

*Shut down.

NORTH LOUISIANA

Company and location—	Daily capacity	Av. daily runs Oct.	Sept.
Acme Ref. Corp., Monroe	100	50	100
Bayou State Oil Corp., Houston	300	150	150
Griswold Ref. Co., Shreveport	2,500	1,500	1,500
Louisiana Oil Ref. Co., Shreveport, Bossier	23,000	19,000	18,500
Pelican Ref. Co., Converse	100	50	50
Shoreline Oil Co., Lewis	1,000	600	1,000
Spartan Ref. Co., Shreveport	12,000	(*)	(*)
Stanolind Oil & Gas Co., Vivian	3,500	2,000	2,000
Texas Co., Shreveport	7,000	(*)	(*)
Total	50,000	23,350	23,300

*Shut down.

NORTH CENTRAL TEXAS

Company and location—	Daily capacity	Av. daily runs Oct.	Sept.
Allstate Ref. Co., Thrall	2,500	(*)	1,000
Baird Ref. Co., Baird	1,500	1,200	1,300
Canyon Oil & Gas Co., Inc., Cisco	500	(*)	(*)
Continental Oil Co., Wichita Falls	6,000	4,000	3,700
Co-operative Consumers Refinery, Inc., Megargel	500	200	200
Empire Oil & Refining Co., Gainesville	5,000	(*)	(*)
Exchange Pet. Corp., Albany	500	250	250
Falls Ref. Co., Wichita Falls	2,000	300	300
Gratex Ref. & Fuel Oil Co., Graham	500	250	250
Gulf Ref. Co., Fort Worth	10,000	3,450	4,000
Gulf Ref. Co., Sweetwater	5,000	4,330	4,400
Haskell Oil Ref. Co., Breckenridge	200	(*)	(*)
Hightower Oil & Ref. Co., Brownwood	750	300	300
Hill Ref. Co., Bailinger	50	50	50
Imperial Gas Corp., Fort Worth	1,200	(*)	(*)
Jacksboro Ref. Co., Jacksboro	50	50	50
LaSalle Pet. Co., Burkburnett	2,500	700	700
Magnolia Pet. Co., Fort Worth, No. 1	12,000	4,700	4,350
Marathon Oil Co., Fort Worth	5,000	3,550	3,300
Master Pet. Co., Hawley	500	500	500
Moutray Ref. Co., Hawley	400	400	320
Meunster Ref. Co., Meunster	300	150	150
New Deal Ref. Co., Abilene	300	(*)	(*)
Nolting Ref. Co., Sweetwater	1,000	(*)	(*)
Norgold Ref. Co., West Olney	400	200	200
Olney Oil & Ref. Co., North Olney	3,000	1,700	1,800
Omega Ref. Co., Brownwood	200	(*)	(*)
Panhandle Ref. Co., Wichita Falls	5,000	2,500	2,500
Panhandle Ref. Co., Lauders	1,200	700	700
Pentex Ref. Co., Echo	400	(*)	(*)
Pilot Point Ref. Co., Pilot Point	500	100	100
Sinclair Ref. Co., Fort Worth	5,000	2,500	2,500
Southtex Ref. Co., Trent	250	(*)	(*)
Southland Ref. Co., Olney	1,000	(*)	(*)
Starlight Ref. Co., Inc., Ballinger	500	350	250
Superior Ref. Co., Tiffin	800	(*)	(*)
Taylor Ref. Co., Taylor	6,000	800	800
Taxman Ref. Co., Wichita Falls	2,500	2,000	2,250
Texas Pacific Coal & Oil Co., Fort Worth	3,000	(*)	1,800
Texas Pacific Coal & Oil Co., Caddo	1,000	700	700
Tucker Ref. Co., Wichita Falls	200	150	150
Waggoner Ref. Co., Electra	6,000	2,500	2,500
Watt Ref. Co., Brownwood	200	200	200
Total	97,950	38,940	41,670

*Shut down.

WEST TEXAS AND PANHANDLE

Company and location—	Daily capacity	Av. daily runs Oct.	Sept.
Active Oil Co., Arno	1,500	(*)	(*)
Aero Ref. Co., Pecos	220	100	100
Coltex Ref. Co., Colorado	12,500	5,000	5,000
Concho Ref. Co., San Angelo	250	100	100
Cosden Oil Co., Big Spring	12,500	5,500	5,500
Danciger Refs., Inc., Pampa	6,500	5,500	5,500
Gibson Oil Corp., Magic City	250	(*)	(*)
Howard County Ref. Co., Big Spring	1,500	500	300
Morrison Ref. Co., Morrison	100	50	50
McNutt Ref. Co., El Paso	2,000	750	750
Panhandle Ref. Co., Kings Mill	2,000	1,000	1,000
Paramount Ref. Co., San Angelo	2,000	(*)	(*)
Phillips Pet. Co., Borger	50,000	19,100	19,000
Shamrock Oil & Gas Co., Sunray	2,000	1,300	1,200
Shamrock Oil & Gas Co., Lefors	1,500	1,500	1,400
Sinclair Ref. Co., El Paso	2,500	(*)	(*)
Standard Oil Co. of Texas, El Paso	14,000	5,200	7,000
Texas Co., El Paso	2,000	1,000	1,000
Texas Co., Amarillo	4,000	2,000	2,000
West Texas Ref. Co., Pecos City	6,000	(*)	(*)
Wickett Pet. Co., Wickett	2,500	500	500
Total	125,820	58,400	57,600

*Shut down.

SOUTHWEST TEXAS

Company and location—	Daily capacity	Av. daily runs Oct.	Sept.
Amsco Ref. Co., Mirando City	4,000	2,000	2,000
Bee Oil & Ref. Co., Pettus	1,000	500	500
Capital Ref. Co., Luling	2,500	(*)	(*)
Chapa Ref. Co., Laredo	100	(*)	(*)
Citizens Ref. Co., Luling	200	50	50
Corpus Christi Ref. Co., Corpus Christi	1,500	1,500	1,500
Humble Oil & Ref. Co., Ingleside	15,000	10,000	10,000
Humble Oil & Ref. Co., San Antonio	5,000	3,050	3,050
Magnolia Pet. Co., Luling	7,000	4,090	5,790
Pettus Ref. Co., Pettus	1,500	1,200	1,200
Phoenix Ref. Co., San Antonio	500	500	500
Phoenix Ref. Co., Bruni	900	600	600
Pioneer Oil & Ref. Co., Somerset	2,000	1,000	500
Rado Ref. & Prod. Co., McAllen	500	200	200
Texas Co., San Antonio	3,000	3,000	3,000
Texas Pet. Prod. Co., Somerset	1,500	250	250
Valley Ref. Co., Harlington	1,000	800	800
Total	47,200	28,740	29,940

*Shut down.

EAST TEXAS

Company and location—	Daily capacity	Av. daily runs Oct.	Sept.
Acme Ref. Co., Gladewater	1,250	335	(*)
Adams Ref. Co., Big Sandy	1,000	(*)	(*)
Apex Ref. Co., No. 1, Gladewater	4,500	(*)	(*)
Apex Ref. Co., No. 2, Gladewater	2,000	(*)	(*)
Admiral Ref. Co., Kilgore	2,500	1,250	2,050
Alton Ref. Co., Gladewater	1,000	450	500
Artex Ref. Co., Arp	2,000	(*)	(*)
Bartlett Ref. Co., Kilgore	2,500	(*)	(*)
Beacon Oil & Ref. Co., Henderson	4,000	245	450
Blue Diamond Ref. Co., Gladewater	1,500	60	(*)
Bradley Ref. Co., Kilgore	2,000	(*)	(*)
Carnation Ref. Co., Gladewater	1,500	590	600
Cascade Ref. Co., Reeds Switch	1,250	2,790	900
Century Ref. Co., Friars Switch	2,500	2,220	2,400
Chief Ref. Co., Gladewater	2,000	1,500	1,200
Condor Ref. Co., Kilgore	2,000	600	1,700
Danciger Refineries, Inc., Longview	10,000	(*)	(*)
Deason Ref. Co., Turnerstown	500	(*)	(*)
East Texas Cracking Co., Camp Switch	4,200	610	1,500
East Texas Ref. Co., No. 2, Longview	10,000	5,850	8,300
East Texas Ref. Co., No. 3, Friars Switch	12,000	(*)	(*)
Friar Topping & Ref. Co., Friars Switch	2,000	(*)	(*)
Gilliland Ref. Co., Gladewater	4,000	2,960	3,700
Gilliland Ref. Co., Overton	5,500	3,330	3,000
Gilmer Ref. Co., Gladewater	1,000	(*)	(*)
Godlin Ref. Co., Gladewater	500	(*)	(*)
Goodson, Gentry, Carles Ref. Co., Gladewater	1,000	(*)	(*)
Heath Ref. Co., Camp Switch	1,000	315	300
Hub Oil Ref. Co., Reeds Switch	3,000	(*)	(*)
Hunter & Knox Ref. Co., Reeds Switch	750	(*)	(*)
Hurricane Pet. Corp., Overton	4,000	2,215	3,700
Johnson Ref. Co., No. 1, Kilgore	1,200	(*)	(*)
Johnson & Burnham, Kilgore	4,000	2,820	3,200
Keystone Ref. Co., Gladewater	1,250	80	300
Kilgore Reclamation Co., Kilgore	2,000	(*)	(*)
Kiltex Reclamation Plants, Inc., Kilgore	500	(*)	(*)
Lake Ref. Co., Gladewater	2,000	(*)	(*)
La Petite Ref. Co., Joinerville	800	50	600
Lapren Ref. Co., Kilgore	2,500	1,900	2,000
Lone Star Ref. Co., Gladewater	3,000	3,870	3,500
London Topping & Ref. Co., Overton	1,000	(*)	(*)
Longregg Ref. Co., Kilgore	500	(*)	(*)
Lotus Ref. Co., Gladewater	1,750	(*)	(*)
Master Pet. Co., Waco	1,000	300	300
McKain Ref. Co., Gladewater	1,500	(*)	(*)
McMurray Ref. Co., Arp	4,000	2,450	2,600
Magnolia Pet. Co., Corsicana	5,000	4,100	3,600
National Ref. Co., Camp Switch	1,000	(*)	(*)
Ocean Ref. Co., Kilgore	2,300	1,300	2,000
Outdoor Ref. Co., Kilgore	900	(*)	900
Overton Ref. Co., Overton	3,000	(*)	(*)
Ozazo Ref. Co., Friar Switch	1,200	1,020	(*)
Panama Ref. Co., Kilgore	3,000	(*)	(*)
Pelican Ref. Co., Gladewater	750	(*)	(*)
Pelican Ref. Co., Gladewater	1,000	(*)	(*)
Pennant Ref. Co., Kilgore	500	(*)	(*)
Pepe Ref. Co., Gladewater	1,500	(*)	(*)
Premier Ref. Co., Gregston	4,000	2,900	2,400
Riverside Ref. Co., Gladewater	1,500	670	1,300
Shoreline Ref. Co., Kilgore	4,000	(*)	(*)
Simms Co., West Dallas	4,000	(*)	(*)
Sinclair Ref. Co., Camp Switch	5,000	2,000	3,100
Southern Oil Ref. Co., Reeds	3,000	(*)	(*)
Southport Ref. Co., Kilgore	4,000	3,000	3,600
Stag Ref. Co., Kilgore	1,200	(*)	(*)
Supreme Ref. Co., Gladewater	1,200	(*)	(*)
Swastika Ref. Co., Kilgore	2,000	750	600
Texas Co., Dallas	16,000	10,000	12,000
Texas Oil Products Co., Gladewater	3,000	2,900	2,600
Texana Ref. Co., Kilgore	300	(*)	(*)
Texas State Ref. Co., Kilgore	1,000	(*)	220
Texover Ref. Co., Overton	1,000	1,380	1,070
Thompson & Bridges Ref. Co., Gladewater	1,000	840	720
Trio Ref. Co., Arp	2,100	2,110	2,100
Tyler, Tex., Prod. & Ref. Co., Tyler	15,000	6,000	6,000
Tyreco Ref. Co., No. 1, Arp	2,500	2,500	2,700
Tyreco Ref. Co., No. 2, Overton	3,000	2,870	3,000
Union Ref. Co., Kilgore	2,000	(*)	(*)
Upshur Ref. Co., Gladewater	1,000	(*)	(*)
Utah Ref. Co., Kilgore	3,000	2,670	2,900
Wichita Ref. Co., Gladewater	1,000	(*)	(*)
Wilemon Ref. Co., Overton	500	(*)	(*)
Witeners Ref. Co., Gladewater	1,500	(*)	(*)
Wolfe Ref. Co., Kilgore	1,000	(*)	(*)
Total	224,400	85,970	92,480

*Shut down.

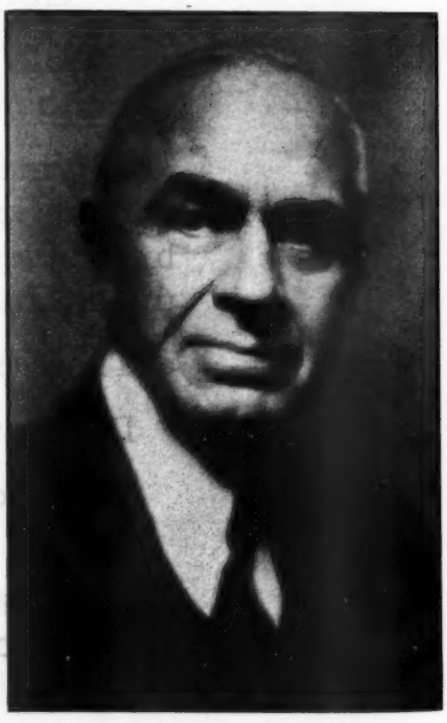
OBITUARY

SAMUEL JEFFERSON CAUDILL, consulting petroleum geologist, formerly of Tulsa, died suddenly in Shelbyville, Ky., October 14. He had maintained offices in Tulsa up to a few months ago when he returned to his old home at Shelbyville, Ky. After graduating from Pennsylvania State College Mr. Caudill was in the geological department of Gypsy Oil Co. and Marland Oil Co.

THOMAS W. MAZEY, aged 67, who died recently at Bartlesville, Okla., was an employe of the Phillips Pipe Line Co. at Burbank for the past 15 years. Previously he was with the Gulf Pipe Line Co. in the Bartlesville district and the Prairie Pipe Line Co. at Chanute, Kans. He began with the Buckeye Pipe Line Co. in Ohio and was with the Indiana Pipe Line Co. before going West. He had been in the oil business for 50 years.

RUSSELL F. RYAN, consulting geologist of Houston, Tex., died from injuries suffered when his car collided head on with another 4 miles south of the town of Hempstead, Tex.

ELGOOD C. LUFKIN, 71, former president and chairman of the board of the Texas Co., died at his home at Rye, N. Y., October 9. Mr. Lufkin was born in Springfield, Mass., February 5, 1864. He went to Titusville, Pa., in 1869 with his father, Chauncey F. Lufkin, who engaged in the producing business in the vicinity of Pioneer, Shamburg,



ELGOOD C. LUFKIN

Titusville and later in the Bradford and Bolivar Fields. In 1889 he went to Lima, Ohio, as chief engineer of the Indiana Pipe Line Co. then under construction. In 1909 he became manager of the natural gas department of the Texas Co., and in 1909 was elected vice president of the Texas Co. in Houston, Tex. In 1911 he removed to New York and in 1913 became president of the Texas Co. in New York. In 1920 he became chairman of the board of directors and of the executive committee.

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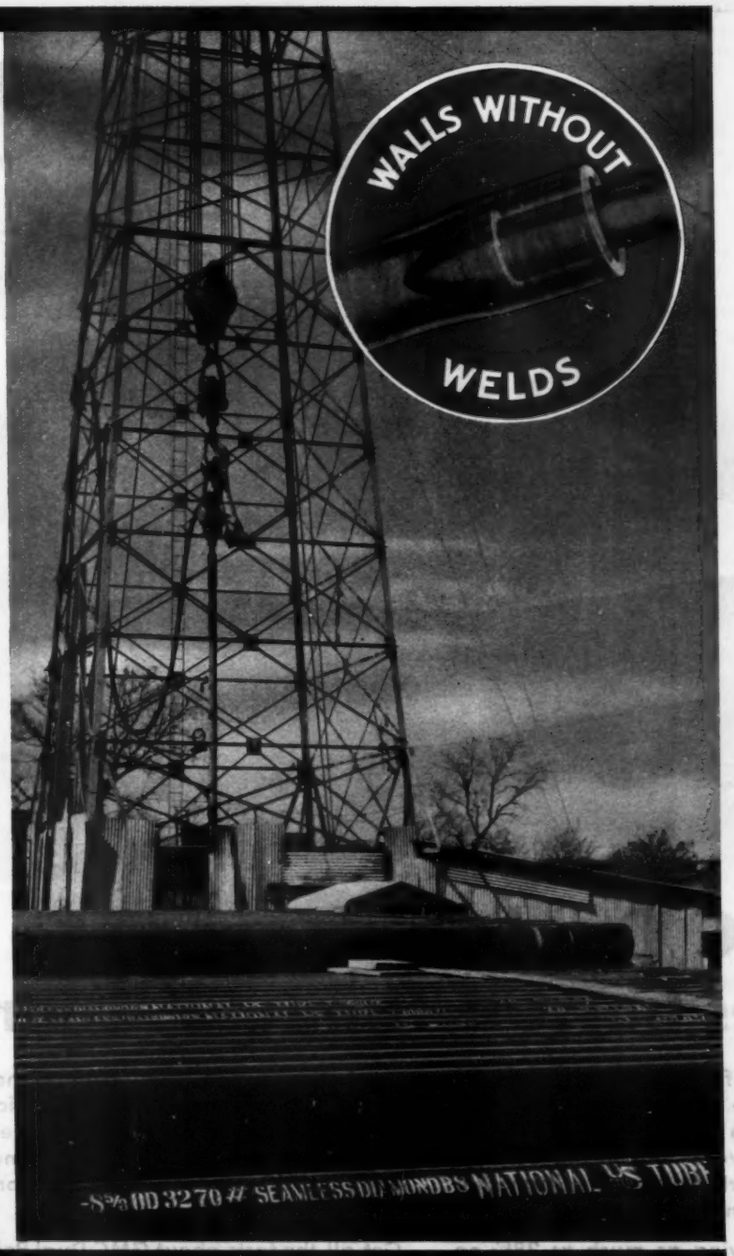

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Oil News from Foreign Lands

VENEZUELA

Venezuelan crude oil production in September averaged 422,114 bbls. daily. This represented an increase of 7,414 bbls. daily over August and 19,571 bbls. daily or a little less than 5 per cent over September, 1934. The September daily average was greater than any month this year with the exception of the June average of 424,411 bbls. daily.

Most of the gain of September over August can be accounted for by the daily increase in the Lagunillas area which jumped from a daily average of 228,670 bbls. in August to 236,640 bbls. in September. This area has been showing a steady increase in production most of this year reflecting increased drilling in proven areas with new tests which extended the proven area. At least two operators have been able to increase the output of older wells by improved operating methods.

As shown in the following table, the Lagunillas area in the lake region and the Quiriquire Field in eastern Venezuela account for all of the increased production over a year ago. The production of these two areas in September was 941,870 bbls. or approximately 31,000 bbls. daily greater than September, 1934. In the remaining fields there were general decreases amounting to 353,827 bbls. for the month or a little more than 11,000 bbls. daily. This comparative trend has been apparent so far this year and reflects the fact that operators have centered their activities in the other areas. However individual companies have been active in some of other fields and have been able to maintain or increase their production.

Among the individual companies, the total production of the Lago Petroleum Corp. is running behind last year despite the increase in Lagunillas. Lagunillas has enabled Venezuelan Gulf Oil Co. to show a substantial gain over 1934 with a small increase by V.O.C.

The Creole Petroleum Corp. through its subsidiary the Standard Oil Co. of Venezuela continues to show a healthy gain over 1934 due to its operations in the Quiriquire Field coupled with some gains in the lake region. Its Quiriquire production in September was slightly below that of August and July.

Last week the Standard of Venezuela started drilling its first wildcat test on the leases of the Pantepec Oil Co. subsidiaries. The first test is located on what is known as the "El Lirial" concession in Eastern Venezuela about 30 miles from the Quiriquire Field. Under a contractual agreement recently consummated the Standard company agreed to drill six tests on the Pantepec acreage and if oil is discovered in commercial quantities additional development will take place. Over a million acres are involved in the Standard-Pantepec agreement.

In the Pedernales area of Eastern Venezuela the Standard company is getting ready to drill another test close to the No. 1 Anacuro which was completed last month. The latter well which is considered the most important completion of the year apparently has opened up a new field. The well which was completed at a depth of 5,100 feet flowed for over two weeks at the rate of 800 bbls. daily. It is now shut in pending erection of storage. This field is located a short distance from the Gulf of Paria and a small shipment has already been made to a D.W.I. refinery. It is understood that the company will drill additional tests before making arrangements for the transportation of the crude in large quantities.

The Santa Rosa No. 1, wildcat test of the Venezuelan Gulf Oil Co. in Eastern Venezuela is now ready to continue drilling according to recent reports. Following a fishing job, six inch casing has been set and cemented at a depth of 5,520 feet.

The production in Venezuela for September by fields and companies was as follows (data in barrels):

By fields—	1935	1934
Lagunillas	7,099,279	6,477,800
La Rosa-Ambrosia	1,860,480	2,005,600
Quiriquire	1,605,591	1,285,200
Mene Grande	1,307,010	1,340,500
Tarra	410,130	441,200
Cumarebo	185,713	294,900
Concepcion	117,210	136,000
El Mene	65,880	77,000
La Paz	13,050	18,100
Total	12,664,343	12,076,300

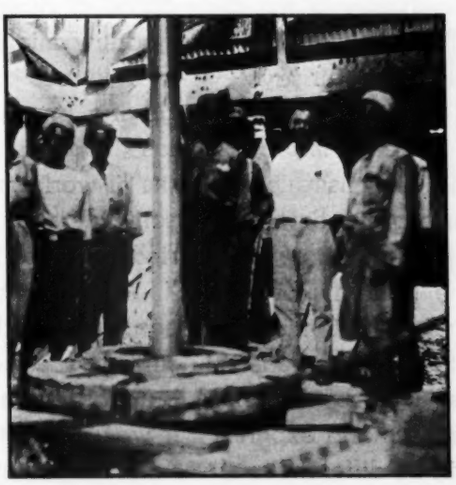
By companies—	1935	1934
Lago Petroleum Corp.	3,930,823	4,151,500
Venezuelan Oil Concessions, Ltd.	3,277,260	3,149,400
Creole Petroleum Corp.	2,266,240	1,776,000
Venezuelan Gulf Oil Co.	1,427,000	1,140,700
Caribbean Petroleum Co., Ltd.	1,307,010	1,340,700
Colon Oil Corp.	410,130	441,000
British Controlled Oilfields, Ltd.	65,880	77,000
Total	12,684,343	12,076,300

Daily averages—	1935	1934
September	422,114	402,543
August	414,700	394,620
July	415,582	386,342
June	424,411	373,435
May	401,743	372,333
April	382,378	367,333
March	371,900	351,630
February	390,020	348,900
January	405,156	350,270
First six months	397,055	360,780

FRANCE

Imports of crude oil and refinery products into France for the first seven months of 1935 averaged 122,400 bbls., a daily gain of 7,400 bbls. over the first half of 1934. For the seven months, crude oil imports averaged 99,160 bbls., a gain of almost 24,000 bbls. daily over the first seven months of 1934. This large gain in crude oil imports for refining at French plants resulted in reductions of 50 per cent in gasoline imports for the first seven months of this year.

The crude oil imports have shown a steady gain over a period of four years when the French refinery construction program got under way. In July the imports averaged 113,000 bbls. daily approximately half of which came from Iraq.



Rotary crew in the Singu oil field in India

ITALY

Being almost entirely dependent upon foreign countries for petroleum products, Italy has for years sought a substitute motor fuel that would permit reducing imports of gasoline, according to the Chemical Division, Department of Commerce.

During the world war the Italian army is said to have secured excellent results from automotive vehicles using a mixture of gasoline, alcohol and ether, and in 1930 a bill was passed requiring alcohol producers to make 25 per cent of their production available to motor fuel dealers. Although this bill provided that dealers should mix the alcohol with gasoline, consumption has been small owing to the scarcity of properly dehydrated alcohol, it was stated.

Recently attention has been turned to wood and charcoal gas as a motor fuel, and as results have been reported satisfactory, a bill was passed on August 28 requiring engines of all auto buses used to transport passengers, both urban and interurban, and whether operated by a public administration or private company, to be modified to run by gasogenes or with other substitute motor fuels, according to a report from Trade Commissioner E. Humes, Rome. December 31, 1937, is set as the time limit for buses now in operation to be converted.

The gasogene (German patent), it is pointed out, is an apparatus for producing gas by the distillation of wood or charcoal, the gas so generated being burned in internal combustion engines in place of gasoline vapor. Considerable use is already being made of the gasogene apparatus as since July, 1934, buses so equipped have been exempted from the road tax for a period of five years. Several buses using the gasogene apparatus have been operating for several months between Milan and Rome and the Rome Co. recently placed an order for 25 more, 15 of which have been delivered and are already in operation, according to the report.

Early this year the Italian Beet & Sugar Corp. submitted to the government a plan for increasing sugar beet acreage sufficiently to produce 1,000,000 hectoliters of power alcohol annually. Experiments are also being conducted with methyl alcohol, according to the Rome report.

MEXICO

The following table gives values and production taxes on crude oil and refinery products in Mexico for September (calculated in silver at exchange of 3.60):

VALUES

Fuel oil	23.96 silver pesos per cu. meter =	$1.058 bbl.
Gasoline	81.03 silver pesos per cu. meter =	.0852 gal.
Kerosene	48.12 silver pesos per cu. meter =	.0506 gal.

PRODUCTION TAXES

	Tax per cu. meter (pesos)	Tax in U.S. currency (per bbl.)
Crude (sp. gr. 0.93 = Be. 20.38)	2.689	$0.11875
Crude (sp. gr. 0.96 = Be. 15.68) or heavier	1.620	.07154
Fuel oil (sp. gr. 0.95 = Be. 17.21)	2.492	.11005
		(per gal.)
Gasoline (crude)	3.241	.00341
Gasoline (refined)	1.621	.00170
Kerosene (crude)	2.887	.00304
Kerosene (refined)	1.444	.00152

The production tax on fuel oil will vary approximately .00902 per barrel for each degree of specific gravity above (deduct) or below (add) 0.95 specific gravity.

The production tax on light crude will vary approximately .00974 per barrel for each degree of specific gravity above (deduct) or below (add) 0.93 specific gravity.

EXPORT TAXES

Note: As export taxes are payable in silver at par, to make calculations in U. S. currency, take figures given below, multiply them by 2 and divide by rate of exchange at time of payment.

	U. S. currency ($1 for 2 pesos) (per bbl.)
Crude (sp. gr. 0.93 = Be. 20.38)	$0.07949
Crude (sp. gr. 0.96 = Be. 15.68) or heavier	.04928
Fuel oil (sp. gr. 0.95 = Be. 17.21)	.05962
	(per gal.)
Gasoline (crude)	.00472
Gasoline (refined)	.00189
Kerosene (crude)	.00151
Kerosene (refined)	.00057

the OIL AND GAS JOURNAL

PRODUCING REFINING NATURAL GASOLINE PIPE LINE

Published weekly by

THE PETROLEUM PUBLISHING COMPANY

114-16 West Second Street, Tulsa, Oklahoma

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Established 1910 By
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MEMBER, AUDIT BUREAU OF CIRCULATIONS

A Good Beginning

The Interstate Oil Commission promises to undertake its work with "unhastened thoroughness" remarking that the present favorable condition of the industry permits careful and deliberate approach to its duties free from the distraction of the cry of chaos.

An excellent resolution, if deliberation is not allowed to degenerate into inaction. The commission is to be judged by what it does and not by what it says.

It starts out with business-like directness. A committee on conservation is to study the most improved methods, the conservation laws and administration in the several states. A committee on coordination is to ascertain the potential production of each state and the actual production, estimate the proven reserves and as far as possible eliminate incorrect potentials.

A committee on consumption is to study methods of estimating demand, including those used by the Bureau of Mines; also one to study imports and exports.

It is to be expected that there will be differences of opinion, probably sharp differences, between members of the commission and in the states they represent, and agreement upon actual uniformity is too much to hope for, but an approximation of rules and practices that will be fair all around should not be out of the question. Any attempt to force the program of any one state upon the others would be impracticable.

The commission must keep constantly in mind the picture of the industry as a whole, not the parochial situation in the immediate states each commissioner represents. Only on that policy can it get anywhere.

It is fitting that the interstate compact is to be featured at the annual meeting of the American Petroleum Institute in Los Angeles in November. It will afford an opportunity to put it before the people of California especially, as well as to impress its importance upon the other oil states which have not yet joined it.

These states have nothing to risk by adhering to the compact and their membership will give them a place at the council table and representation in agreements reached. If Oklahoma, Texas and Kansas find it worth while surely other states owe it to themselves.

World Stabilization

Efforts for world stabilization of the oil market in the past have failed, oil men abroad said, because of persistent overproduction in the United States. Now that the American industry is approaching stabilization it is possible that the world situation can again be considered.

Russian competition has been a potential of great weight. The use of Soviet exports of oil as a basis for Russian credit abroad was promoted by underselling. Any plan for world stabilization would have to take Russian possibilities into account.

The negotiations reported under way between Anglo-American companies and the Soviet for the purchase of Russia's exportable surplus up to a certain quantity might be one solution of the problem.

It would be better business for Russia than engaging in a price cutting warfare where both sides lose, especially since Russia would share in the benefits of world stabilization. The proposed buying plan, somewhat similar to that tried in this country, if carried into effect, holds promise of justifying the effort.

American manufacturers of oil field and refinery equipment will be interested in watching the outcome since, if successful, it will provide means for Russia to purchase such equipment in this country. The Soviet, it was understood, was prepared to place orders in America for much needed oil equipment, when the collapse of the trade agreement stopped negotiations.

HIGH PRESSURE HEAT EXCHANGERS

The units illustrated are part of a shipment to a foreign refinery of 24 Kellogg High Pressure Heat Exchangers, containing over 14,000 sq. ft. of heating surface.

These units were designed for unusual operating conditions and the pressures and temperatures involved were:

Shells		Tubes	
250 lb.	490°	1250 lb.	500°
300 lb.	690°	1425 lb.	490°
1000 lb.	690°	1425 lb.	600°

Since the above exchangers were installed and operating, repeat orders have been received for additional units.

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Pouring parolite between the 8-inch and 10-inch pipes for crossing Canadian River as part of Sinclair Prairie oil transport system

Duplex Pipe Line to Combat Unusual Canadian River Crossing Conditions

By L. G. E. BIGNELL

The South Canadian River, flowing eastward through central Oklahoma, is usually a comparatively dry stream, but at times it becomes a raging torrent and then pipe lines crossing the river bed are damaged. The Sinclair Prairie Pipe Line Co. crosses the South Canadian River in Sections 1, 2, 11 and 12, Township 5n, Range 1e, where the stream at times is more than a mile wide. The normal channel is about 2,000 feet wide and usually only part of the channel is filled with water.

Trouble is experienced at this crossing when there is high water because of a shifting current and quicksand, and to insure the movement of oil through lines across this river it is necessary to keep constant watch and to occasionally install new pipe line crossings.

Sinclair Prairie Pipe Line Co.'s new river crossing is unique in its conception and engineering details and fundamentally consists of two lines, each made up of 8-inch 29½-pound pipe inside of 10-inch 40-pound pipe with the space between the outside of the 8-inch and inside of the 10-inch filled with a heavy protective coating used on underground pipe.

These two lines are each approximately 5,500 feet long. The total length of 8 and 10-inch pipe used was 11,033 feet. The lines parallel each other across the river and are spaced about 5 feet apart. They bend upstream where they cross the channel, but are not provided with river clamps or other weights because the combined weight of the two pipes and the filler of heavy protective coating is about 85 pounds per foot. This makes the total

General view of working lay-out

weight of the 11,033 feet of line about 937,805 pounds or each line weighs half this much.

The use of heavy protective coatings around pipe is not new but in the past it has usually been placed on the pipe by brush or by pouring it on the top of the pipe and spreading it with a blanket. In this new crossing the 8-inch pipe was pulled inside of the 10-inch pipe and the space between the two pipes was later filled with the heavy protective coating.

This work was started with a crew of 18 men last February and the job finished August 1. This necessitated working during all seasons of the year and during both high and low water periods in the stream.

The pipe used for the job consisted of all new 8-inch seamless pipe for the inside string that carries the oil under 700 pounds working pressure.

The 10-inch pipe was reclaimed and reconditioned from old pipe lines and the whole line was electrically welded, using the fleet welding method. This method of welding required each end of the pipe be beveled and the bottom of the groove, formed by the butting together of the two beveled ends, was first filled with welding material from a 3/32-inch diameter welding rod. This size welding rod was selected because the metal from it will fill only the bottom of the groove. After this weld was made the welder's helper cleaned the weld and a one-quarter inch rod was next used and the groove filled to about two-thirds of its depth. This weld was next cleaned and then the operation was completed using a three-eighths inch rod which fills the upper portion of the groove and forms a low ridge projecting about an eighth of an inch above the surface of the body of the pipe. This ridge was cleaned and four strips of steel one-half inch by 2 inches wide by 6 inches long welded over the joint and spaced 90 degrees apart around the pipe.

These half-inch strips serve two purposes. At the joints they strengthen the weld, and they are also welded to the body of the 8-inch pipe at intervals of about 10 feet to act as spacers and center this pipe inside of the 10-inch outer pipe when the two sizes of pipe are assembled. These spacers also assist in lowering friction when the 8-inch pipe was pulled into the larger pipe.

The 8-inch pipe was welded into lengths of three joints each, and as this pipe came in random lengths of from 40 to 42 feet each the three-joint assembly was approximately 120 feet long. The 10-inch pipe came in shorter lengths, so when three joints of this size pipe were welded together and the 8-inch pipe pulled into it the 8-inch pipe extended out at each end about 4 or 5 inches. In other words, the 10-inch assembled sleeves were about 8 or 10 inches shorter than the three joints of 8-inch pipe when assembled.

This 8-inch pipe was pulled into the 10-inch sections by a winch mounted upon tracter and was guided into the end of the 10-inch pipe by a bell or funnel shaped piece made out of 12-inch pipe and fitted over the end of the 10-inch pipe. This arrangement not only guided the 8-inch pipe into the end of the 10-inch pipe but it prevents the

Method of pulling sleeve edges together. A 3-inch strip is cut from the 12-inch sleeve lengthwise and then the sleeve is pulled together and welded. Both ends of the sleeve are also welded to the 10-inch pipe

spacing clips on the 8-inch pipe from catching on the end of the 10-inch pipe.

All of this assembly work was done on the south bank of the river and after each 120-foot section of assembled 8-inch inside of 10-inch pipe was completed the space between pipes was filled with hot, heavy protective coating.

At each end of the 10-inch pipe a ring of metal one-quarter inch thick and one-half inch wide was fitted over the 8-inch inner pipe and then tacked. It was next forced into the space between the 8-inch and 10-inch pipe to seal the open end between these two pipes and the space was then caulked with asbestos rope packing so that the heavy protective coating could not escape from the ends of the annular space between the pipes.

The 10-inch outer pipe was then marked off, starting at the center, into 5-foot sections. At each of these marks a 2x5-inch slot was cut through the 10-inch pipe with a torch into which the hot heavy protective coating was introduced to the space between pipes. Over the slots sections of 8-inch pipe were tacked and caulked with asbestos to act as funnels into which the hot coating was poured. It was found that by pouring the hot coating into every other funnel or opening it would spread completely around the 8-inch pipe and drive out all air. To be certain this actually did occur every other section of 8-inch funnel was 24 inches high, whereas the intermediate funnels or vents were only 12 inches high. When the hot coating was poured into and filled the 24-inch intake funnel it would run along the pipe and completely fill the annular space between the two pipes and then rise in the 12-inch vent funnel. This absolutely assured complete filling of the annular space between pipes and upon this particular operation much of the success of the job depended.

If the pipe was cold or the interior between 8 and 10-inch pipe was wet with precipitated moisture, as occasionally happened during the cooler months while this job was being carried on, an oil burner was set at the end of 8-inch pipe from which the wind was blowing and the heat from this burner was blown entirely through the inside of the 8-inch section heating it sufficiently to remove all accumulated moisture. After filling with coating the 8-inch pieces of pipe were removed and the slots covered with patches of sheet metal.

All of the description of this work so far has dealt with the assembly of the 8 and 10-inch pipe into three section lengths and filling the space between pipes with heavy protective coating. The next operation was to weld the assembled sections together and drag them into place in the river.

As the outer sections of 10-inch pipe were from 8 to 10 inches shorter than the inner 8-inch lengths of pipe it was impossible to weld the ends of the 10-inch pipes when the 8-inch pipe was joined together to form the crossing.

To cover this gap a collar or section of 12-inch pipe 5 feet long to span this distance was always slipped over one end of the 10-inch assembled pipe. The 8-inch inside pipe was then electrically fleet welded and strapped so that the oil string was tight and strong.

The 12-inch collar or sleeve was then slipped back over the gap, but because it is actually larger in diameter on the inside than the outside diameter of the 10-inch pipe it fit over, it was necessary to cut a full length section about 3 inches wide out of the 12-inch sleeve to compensate for the difference in diameter.

To complete the job the 12-inch split sleeve was drawn together with heavy jacks and chains around the 12-inch pipe and held in this position as it was welded. The ends were also welded to the outside of the 10-inch pipe and this forms a substantial and tight connection over the 8 and 10-inch inside pipes and stiffens the joint.

Next a hole or slot was cut in the 12-inch sleeve and an 8-inch pipe funnel tacked in place and the interior space between the inside of the 12-inch and the outside of both 8 and 10-inch pipes was filled with hot coating. These slots were later covered with patches welded into place.

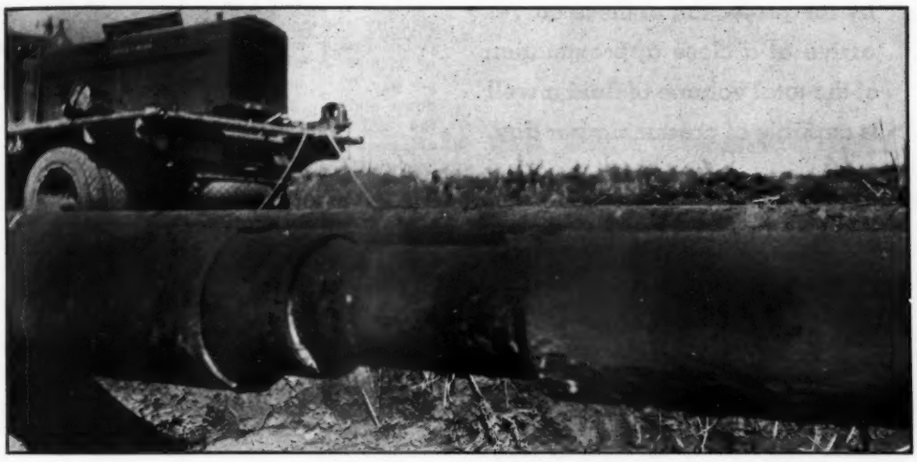
As the 120-foot assemblies were joined together in this way they were pulled into and across the river. Advantage was taken of periods of low water and the assembled sections in 500, 800 and even 1,000-foot lengths were successfully laid on the river bottom and across sand bars and other high spots in the channel of the stream. Rollers were placed at various points to aid in moving these long lengths of pipe. The weight of these strings of 8 and 10-inch pipe was sufficient to bury this line from 4 to 5 feet below the bed of the stream so it is protected from floating material carried either at high or low water stage.

The two lines are strung about 5 feet apart across the stream and form a low angle bend upstream so any force applied to the pipe by the current would be opposed by this bow and the pipe would be in compression rather than tension under this application of outside forces.

One interesting sidelight on this river crossing problem developed when attempt was made to find a leak in the old lines. Oil accumulated in a quicksand bar on the north bank of the river and at one place formed a small pool of oil on the surface. This oil pool was about midway between the line in use, that was upstream from an old line no longer in use. These two sets of lines were about 1,000 feet apart across this sand bar.

To locate the leak a series of holes were sunk in the sand about 20 feet apart. The area immediately alongside of one of the upstream lines was first explored but the leak was not located. The area between the two sets of lines was next explored with holes and then the area along the upstream side of one of the old lines in the downstream crossing was drilled and the leak discovered in one of these old lines.

From this point a series of test holes were sunk between the leak and the point where the oil appeared on the surface of the sand bar nearly 700 feet upstream and it was determined this oil had been washed upstream, rather than downstream, because of eddy currents below the place where the leak occurred in the pipe line. The water from the south shore eddied out into the stream and across the channel to exert sufficient pressure on the oil to force it upstream along this sand bar which formed the north bank of the channel.



Two 8-inch sections tacked together with the 10-inch pipe in place with the 12-inch sleeve ready to be slipped over the weld and filled

Paroliting an 8-inch and 10-inch section 130 feet long. The material is heated to 400° F.

Close view of 12-inch funnel filled with parolite, after which the funnel is removed and the hole is welded over using a slab

Cracking in 1934

A review of the advancements made in the art of cracking in 1934, as prepared by Dr. Gustav Egloff and Emma C. Crandal, of the Universal Oil Products Co., has just been made available. All patents granted during 1934 on the various phases of cracking, treating of cracked products, and cracking equipment are covered in this publication.

Special interest is drawn to Chapter 13, "Treating Cracked Products," in which is shown how more and more refiners are turning to the use of inhibitors to solve the treating problem of cracked gasoline. A useful division of the classes of inhibitors is also included in this chapter.

This book of 196 pages is of great value to the petroleum industry in that all patents granted on cracking during 1934 in the United States, as well as in foreign countries, are listed with a brief summary of the contents of the patent, the patent number, and the date of issue.

Announce A.S.M.E. Program

The next annual meeting of the American Society of Mechanical Engineers will be held in the Engineering Societies Building at 29 West Thirty-ninth Street, New York City, December 3 to 5, inclusive. The program includes sessions on fuels, boiler feed water, radiant heat, oil and gas power as well as many which discuss broader and more general problems common to the oil industry as well as many others.

Subjects which will probably prove most interesting to refiners and producers include those on creep value of metals, prevention of turbine blade deposits, film lubrication theory and the design of bearings, electric generation costs, metal fatigue, heat losses and metal embrittlement.

Bottom Hole Pressure Bomb Aids in Selection of Equipment for Wells

By HAROLD K. IHRIG

This article describes the use of recording type bottom hole pressure bombs in securing necessary information for selecting equipment in large pumping wells. The data gathered may also be plotted as curves and by the projection of these curves arrive at a close approximation of the total volume of fluid a well is capable of producing per day.

Considerable work has been done in the past several years on the use of bottom hole pressures as applied to flowing wells as a means for equitably prorating restricted fields and as a basis in the selection of proper production methods and equipment. It is only recently, however, that the use of bottom hole pressure bombs has come into a very widespread use as a means of determining fluid level conditions and the volume of fluid a pumping well is capable of producing, and thereby furnishing a basis of great assistance to engineers in making suitable selections of producing equipment that will, as nearly as possible, produce the well to capacity.

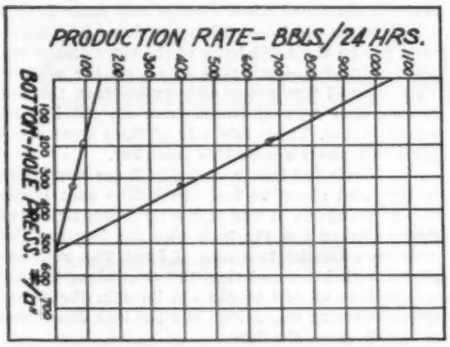


Fig. 2—Representative test curves in which several rates of oil and water production are plotted against the respective bottom hole pressures

In those pumping wells making large volumes of water the operator is sometimes at a loss to determine what extent he is pumping the well "off," and is naturally undecided as to what type of pumping equipment to use because of the large expenditures entailed in making any major changes.

As a means of arriving at a close approximation of the capacity of a pumping well with a high fluid level the recording type bottom hole pressure bomb has been of great help and is receiving an increasing amount of use. There are several types of these recording bottom hole bombs on the market at the present time and while there is a wide difference in the working principle, adaptability, ruggedness and cost the results obtained are comparable and, in nearly all cases, reliable.

Citing a typical case in which the use of a bottom hole pressure bomb of the recording type proved to be of great value to an operator who was confronted with the problem presented by a well pumping a large volume of water and a comparatively small volume of oil, due to the equipment with which the well was being produced, his problem was to select other pumping equipment that would move a larger volume of fluid and thereby increase the oil recovery from the well. The handicap of not knowing the approximate total volume of fluid the well would produce nor the probable volume of oil the well would produce, in case the well was pumped down, made his selection of new equipment, whatever it might be, a "hit or miss" proposition. In order to avert such a situation the operator resorted to the use of a bottom hole pressure bomb to determine without serious question the total capacity of the well.

The pressure element used in the type of bottom hole bomb selected is the Bourdon tube. A steel stylus is attached to the free end of this tube in such a manner that any variation in pressure will cause this stylus to move in a vertical plane. This steel stylus, to record the variations in pressure in the tube, moves over a card of highly sensitized paper which records the path made by the stylus. This card is of such size that it is formed into a cylinder within the bomb and is rotated by the small timing mechanism in the bomb. Each pressure tube must be calibrated against a deadweight tester to determine the length of travel made by the stylus per 100 pounds per square inch pressure. As the recording medium, or card, revolves once in 24 hours, and the timing mechanism usually runs for a period of from 36 to 42 hours the ultimate curve recorded is one in which the last 12 to 15 hours overlaps the part of the curve drawn in the first 12 or 15 hours of the test. Figure 1 is an approximate reproduction of a recorded test with the overlapping part of the curve transposed to form one continuous line.

The bomb was inserted in the gas anchor immediately below the pump being adequately cushioned by both steel springs and rubber to keep it as free from vibration as possible. The tubing was then run into the hole, the rods run and the well put to pumping. The well was pumped at maximum rate for approximately 21 hours then slowed down for a period of 9 hours when it was again run at the speed used at the start of the test. The curve drawn by the bomb, shown in Figure 1, will reveal the entire operation. The rapid rise of the curve is due to the increase in pressure created by the submergence of the bomb as it was lowered into the fluid, and reveals a bottom hole pressure of 525 pounds per square inch. The rapid drop in the bottom-hole pressure, caused by the pumping of the well, to a pressure of 190 pounds indicates that the equipment used to produce the well was operating at its maximum capacity and had lowered the fluid as far as it could. Production at this point was at the rate of 95 bbls. of oil per day and 670 bbls. of water per day. The operating equipment was then slowed down and the fluid level allowed to rise. With the well being pumped at about two-thirds the usual speed we find that the fluid came up the hole sufficiently high to create a pressure of 325 pounds per square inch on the bottom of the hole. Production at this point was at the rate of 53 bbls. of oil per day and 390 bbls. of water per day. By plotting the several pressures against their respective production rates we are able to arrive at two curves which when projected will give a close approximation of the true productivity of the well. Figure 2 shows these figures plotted and the curves extended. It will be noted that at 525 pounds bottom hole pressure the production rate is zero, at 190 pounds bottom hole pressure the rates of 95 bbls. of oil and 670 bbls. of water per day, and at 325 pounds bottom hole pressure the rates of 53 bbls. of oil and 390 bbls. of water per day. By extending a line from the zero production point through the two oil production rates and to the zero pressure line, and doing the same with the water production, we find that the well is capable of producing 145 bbls. of oil per day with 1,050 bbls. of water per day.

With the knowledge that the well in question is capable of producing 1,195 bbls. total fluid, the operator of the well has some definite information upon which to base his decision in the selection of new equipment to produce the well.

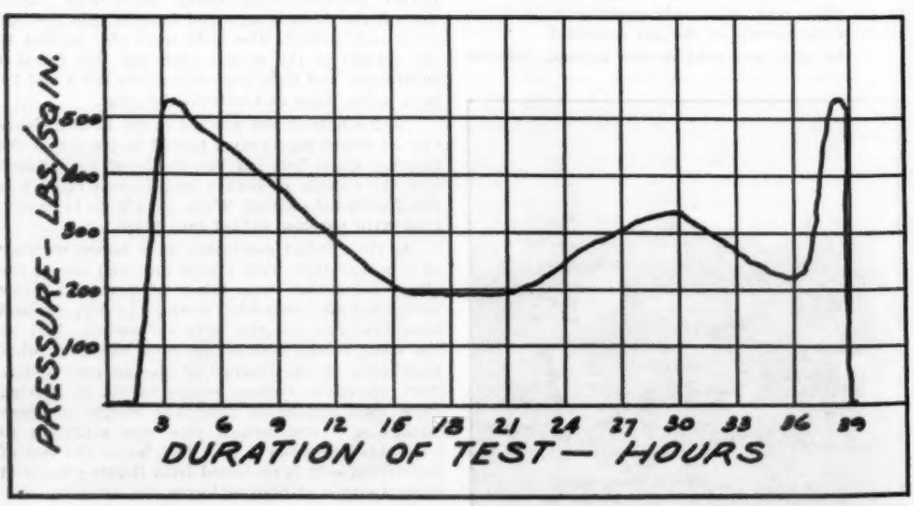
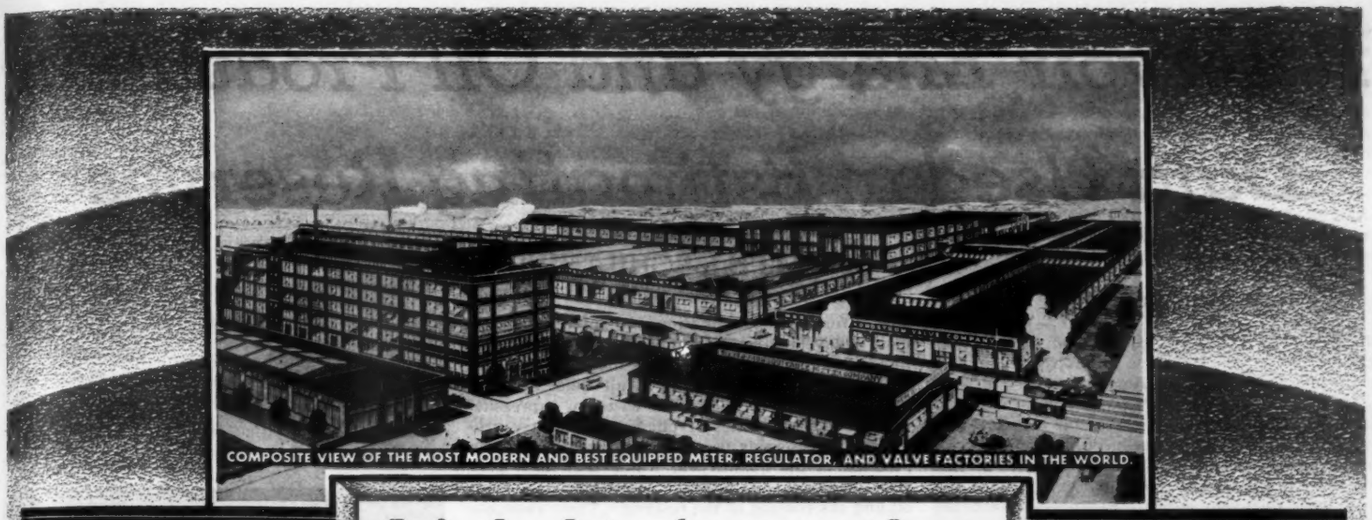


Fig. 1—A typical recording of bottom hole pressures in a pumping well. The cross sectioning was applied to the card after it was taken from the well, and correlated with the time of test, and the pressures measured by use of the calibration curve for the bomb



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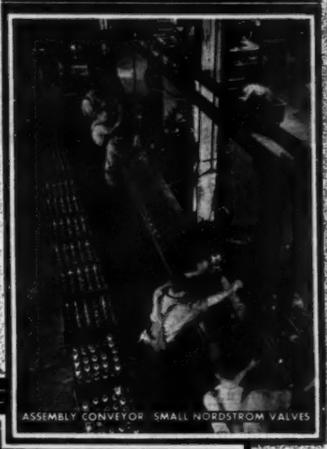
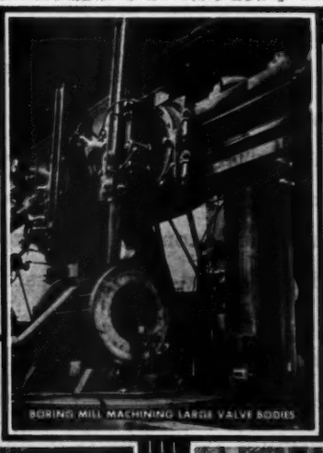
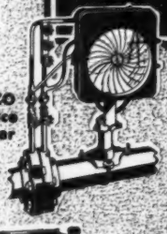

ASSEMBLY CONVEYOR SMALL NORDSTROM VALVES

GENERAL VIEW PROVING ROOM


BORING MILL MACHINING LARGE VALVE BODIES

ORIFICE METER ASSEMBLY LINE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MACHINING LARGE METER AND REGULATOR CASTINGS

SECTION OF TIN METER DEPT.

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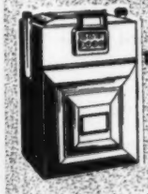
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Reservoir Energy and Oil Production Data Used in Estimating Reserves

By RALPH J. SCHILTHUIS

In 1929, Coleman, Wilde and Moore[1] undertook an investigation of the theoretical decline in reservoir pressure as related to the production of oil and gas. The most important part of this work was presented in an equation defining the relationship between the reservoir pressure, the quantities of oil and gas produced, the oil and gas content of the reservoir, and the properties of the reservoir fluids. With this equation, it appeared that, with sufficient data, it would be possible to calculate the oil content of the reservoir and predict quantitatively the effect of gas-oil ratio on the decline of reservoir pressure. Needless to say, such

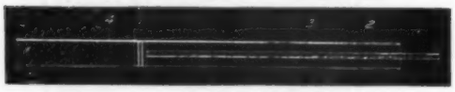

Figure 1

an expression would be highly important in evaluating fields and in arriving at a choice of production methods to be used.

Unfortunately, at the time these investigators published their work, there were not sufficient data available to permit application of their equation. The technique of measuring reservoir pressures had not been developed, gas measurements were uncommon, oil and water production records were in most cases inadequate, and little was known of the properties of the complex hydrocarbon mixtures making up the oil and gas in the reservoirs. For these reasons, little additional work of a similar nature could be done. However, during the past four years, many data have been systematically accumulated on reservoir pressures and the properties of oil and gas, and it is now possible to use these data in furthering the studies on the behavior of oil and gas reservoirs.

It is the purpose here, first, to present the derivation of a modified form of the equation given by Coleman, Wilde and Moore, which will permit the calculation of what will later be defined as the "active oil" content of a reservoir; second, to derive formulae for calculating the reservoir energy changes that occur during the course of production, and finally, to discuss the limitations and application of the equations developed.

Equations for "Active Oil"

When an oil and gas-bearing reservoir is tapped with wells and oil and gas are produced, the reservoir pressure is lowered and the oil and gas remaining are thus caused to expand to fill the space vacated by the oil and gas removed. In connection with this occurrence, it often is the case, where the oil and gas-bearing strata have good connection with strata containing water, that the lowering of pressure in the oil and gas reservoir will cause water to encroach and in effect aid in filling space left vacant by the oil and gas produced. This, of course, decreases the extent to which the remaining oil and gas must expand and accordingly retards the decline in reservoir pressure.

In as much as the temperature in oil and gas reservoirs remains substantially constant during the course of production, the expansibilities, under equilibrium conditions, of the oil and gas remaining in a reservoir are unique functions of pressure. These functions are determinable through the examination of samples of the oil and gas. The samples[2, 3] for such examinations are preferably and most easily obtained under pressure from the bottoms of wells. Thus, if the assumption be made that complete equilibrium is at all times attained in reservoirs, it is possible to write an expression relating the quantities of oil, gas and water produced, the reservoir pressure decline attending the production, the quantity of water that may have encroached into the reservoir, and finally the total oil and gas content of the reservoir. These thoughts form the basis for the development of the expressions mentioned in the foregoing. The derivation is as follows, the nomenclature being given in Table 1 attached.

The total volume of the liquid in any oil and gas reservoir under original conditions is the product of the total original number of units (barrels, or cubic feet) of oil, as measured at the surface, by the volume of each unit, with its dissolved gas, as it originally existed in the reservoir:

$$\text{Original liquid volume} = nu_o$$

Similarly:

$$\text{Original free gas volume} = gv_o$$

where g is the original number of units of free gas in the reservoir. Hence, the original volume of the oil and gas reservoir is:

$$v = nu_o + gv_o \qquad (1)$$

A. I. M. E.—Before the Fall Meeting of the Petroleum Division Ralph Schilthuis of the Humble Oil & Refining Co., delivered the accompanying paper outlining how it is possible, through the proper use of engineering data, to predict the behavior of oil and gas in an underground reservoir. A method of calculating reserves of gas and oil is given in this paper, which deals with a subject of much importance to the petroleum industry during this period of restricted production in most oil fields, and the extended use of the ideas advanced by the author should permit ultimate assembling of accurate estimates of our petroleum reserves.

Now if Δn units of oil be removed, and the specific volume of the remaining oil be changed to u_s, the volume of liquid remaining will be:

$$(n - \Delta n)u_s$$

If, at the same time, the free gas in the reservoir has been changed by an amount Δg and its

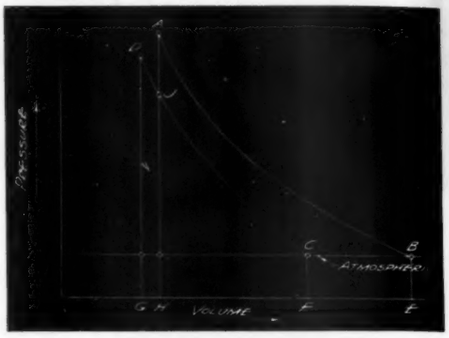

Figure 2

specific volume changed to v, the volume of free gas will be:

$$(g - \Delta g)v$$

The sum of these two equations in the new volume of the reservoir, which is equal to the original volume less the volume of any water that may have encroached into the reservoir:

$$(n - \Delta n)u_s + (g - \Delta g)v = V - (Z - z) \qquad (2)$$

where:

Z = volume of water that may have encroached into the reservoir, and
z = volume of water produced.

Subtracting Equation (1) from Equation (2):

$$-n(u_o - u_s) = u_s\Delta n + v\Delta g - g(v - v_o) - (Z - z) \qquad (3)$$

The term Δg is the change in the number of units of free gas in the reservoir. It may be divided as follows:

1. The free gas produced, $\Delta g_1 - \Delta g_2$, where Δg_1 is the total gas produced, and Δg_2 is the dissolved gas produced.
2. The gas escaping from solution in the oil remaining, Δg_3.
3. Any gas that may be returned to the reservoir, Δg_4.

Then:

$$\Delta g = \Delta g_1 - \Delta g_2 - \Delta g_3 - \Delta g_4 \qquad (4)$$

But:

$$d(\Delta g_1) = rd(\Delta n)$$

where r = produced gas-oil ratio,

$$d(\Delta g_2) = r_s d(\Delta n)$$

where r_s = dissolved gas-oil ratio, and

$$d(\Delta g_3) = (n - \Delta n)d(r_o - r_s) = -(n - \Delta n)dr_s$$

and

$$d(\Delta g_4) = r_i d(\Delta n)$$

where r_i = injected gas-oil ratio.

Therefore:

$$d(\Delta g) = rd(\Delta n) - r_s d(\Delta n) + (n - \Delta n)dr_s - r_i d(\Delta n)$$

*Author's title, "Active Oil and Reservoir Energy." Presented before Houston meeting of American Institute of Mining and Metallurgical Engineers.

[1] "Quantitative Effect of Gas-Oil Ratios on Decline of Average Rock Pressure," S. P. Coleman, H. D. Wilde, Jr., and T. W. Moore. Trans. A.I.M.M.E., Pet. Div., 1930, p. 174.

[2] "A Study of Bottom Hole Samples of East Texas Crude Oil," H. E. Lindsly, U. S. Bur. Mines R.I. 3,212 (1933).

[3] "Technique of Securing and Examining Subsurface Samples of Oil and Gas," R. J. Schilthuis, The Oil and Gas Journal, May 16, 1935.

$$= r_s d(\Delta n) - d(r_s \Delta n) + n dr_s$$

where r_s = net gas-oil ratio.

Integrating between the limits of the original and final conditions:

$$\Delta g = \Delta n(r_s - r_s) - n(r_o - r_s) \quad (5)$$

or

$$\Delta g = \Delta n(r_s - r_o) - (n - \Delta n)(r_o - r_s) \quad (6)$$

The number of units of gas released from solution from one unit of oil, multiplied by its specific

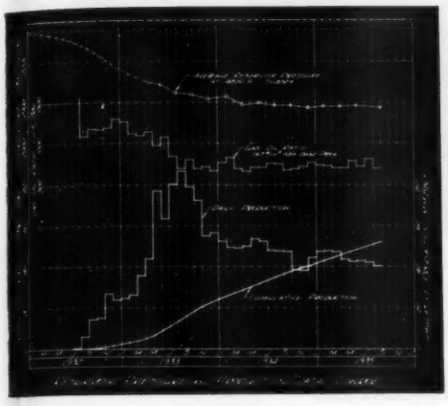

Figure 3—Reservoir pressure and production data—Conroe

volume, is the volume of the gas released. This is equal to the volume of the mixture of oil and its released gas minus the volume of the oil:

$$(r_o - r_s)v = (u - u_s)$$

or

$$(r_o - r_s) = \frac{(u - u_s)}{v} \quad (7)$$

From Equations (6) and (7):

$$v\Delta g = v\Delta n(r_s - r_o) - (n - \Delta n)(u - u_s) \quad (8)$$

Substituting Equation (8) in Equation (3):

$$-n(u_o - u) = u_s \Delta n + v\Delta n(r_s - r_o) - (n - \Delta n) \cdot (u - u_s) - g(v - v_o) - (Z - z) \quad (9)$$

whence:

$$n = \frac{\Delta n[u + (r_s - r_o)v] - g(v - v_o) - (Z - z)}{(u - u_o)} \quad (10)$$

If m is the ratio between the volume of the reservoir originally occupied by free gas and that occupied by oil, then:

$$m = \frac{gv_o}{nu_o} \quad (11)$$

Substituting Equation (11) in Equation (10):

$$n = \frac{\Delta n[u + (r_s - r_o)v] - (Z - z)}{(u - u_o + \frac{mu_o(v - v_o)}{v_o})} \quad (12)$$

Equation (12) is the general equilibrium expression for fields having an original free gas cap and water drive. Where there is no water intrusion and no water is produced:

$$n = \frac{\Delta n[u + (r_s - r_o)v]}{(u - u_o) + \frac{mu_o(v - v_o)}{v_o}} \quad (13)$$

Where there is no original free gas cap:

$$n = \frac{\Delta n[u + (r_s - r_o)v] - (Z - z)}{(u - u_o)} \quad (14)$$

Where there is neither water drive nor an original free gas cap:

$$n = \frac{\Delta n[u + (r_s - r_o)v]}{(u - u_o)} \quad (15)$$

It is noted that there are three unknowns in Equation (12), namely, the original quantity of oil in the reservoir, the original gas, and the quantity of water that may have encroached into the reservoir, attending the production of oil and gas. These unknowns are related to the quantities of oil, gas and water produced as well as the specific volumes of the oil and gas remaining in the reservoir. As stated before, the specific volumes are in turn functions of reservoir pressure. Equations (13) and (14) and (15) hold for the specific cases where either water drive or an original free gas cap, or both, are absent. In the first two of these, the number of unknowns is reduced to two, while in the last only one unknown, the original quantity of oil, appears.

Use and Limits of Equations

These formulae have certain advantages over that proposed by Coleman, Wilde and Moore, who made use of the laws for perfect gases and perfect solutions in their derivation. Here, such an assumption is not made; instead, the relation between pressure and volume determined in the laboratory on samples of the oil and gas are used in the application of the equations. Thus, the equations are applicable to the study of high pressure reservoirs, whereas one which assumed the laws for ideal gases and solutions is very likely to be seriously in error. Most of the terms used in the expressions may be read directly from curves prepared from the laboratory data, and therefore the calculations involved are simplified.

Except in so far as the specific volumes of the oil and gas in a reservoir are dependent upon the manner of liberation of the gas from solution in the oil, upon reduction of pressure, the equations are exact for a reservoir in which complete equilibrium between all phases is at all times established. Unfortunately, equilibrium is never attained. The deviations from equilibrium are such that reservoirs behave as though they contain considerably smaller quantities of oil and gas than they actually do contain. There are believed to be two conditions that make for this behavior. First and probably most important, it appears that much of the oil and gas is contained in relatively impermeable portions of the reservoirs wherein the pressures are not lowered to the same extent as in the more permeable sections that are first to

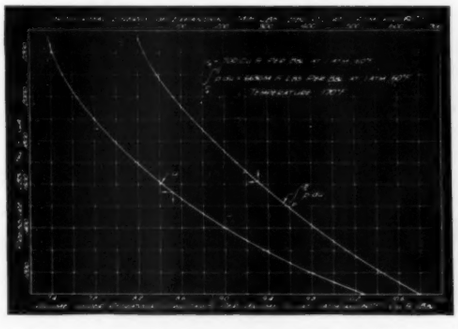

Figure 4—Pressure-volume relations and calculated isothermal energy of expansion for Conroe oil and original complement of dissolved gas

furnish oil and gas for production. Thus, the oil and gas confined in the "tight" or relatively impermeable parts of the reservoirs does not have opportunity to expand and contribute toward filling the space vacated by oil and gas produced to the same extent as the oil and gas in the more permeable strata. A second possible condition that also may play some part in causing reservoirs to behave as though they contain less oil and gas than they actually do is the tendency for the oil remaining to fail to liberate its dissolved gas as pressure upon it is lowered, and thus for it to become supersaturated. It is clear that oil in such condition would fail to do its full part in expanding to fill voided space. Both of these conditions bring about the result that the reservoir pressures measured during the course of production are lower than those that would prevail if the decline in pressure was uniform and complete equilibrium established on the entire quantity of oil and gas in the reservoirs. For these reasons, the oil and gas content of a reservoir, as calculated by either of the equilibrium expressions (12), (13), (14) or (15), is always less than the true content. Despite the discrepancy, however, it is believed that the calculated quantity of oil has significance. It is

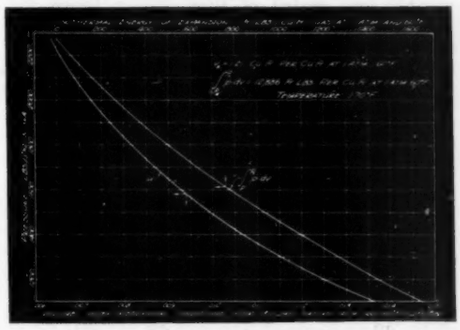

Figure 5—Pressure-volume relations and calculated isothermal energy of expansion for Conroe free gas

probably that part of the total quantity of oil that is contained in the interconnected and permeable portions of a reservoir, and, which actively contributes to the maintenance of the reservoir pressure. This introduces the concept of "active oil." Aside from its interpretation as the portion of the oil contained in the permeable parts of a reservoir, the "active oil" also has possible applications to the study of the performance of oil and gas reservoirs such as follows:

1. Determination of the effectiveness of any natural water drive that may be acting upon a reservoir.

2. To calculate the approximate pressure changes to be expected under various rates of flow in a field under water drive.

3. Evaluation of the benefits to be derived from gas return operations.

4. Estimation of the reservoir energy changes that occur during the course of production.

The use of the "active oil" in connection with the latter problem will be discussed in a part of the paper to follow.

General Application

The exact details of the manner in which the Equations (12), (13), (14) or (15) may be employed to best advantage can be worked out only from a consideration of the data available in the particular case. No specific rules can be laid down. Where an original free gas cap is encountered, it is necessary to make some estimate, from geologic data, of the original size of the gas cap. This quantity is usually best expressed in the equations as a ratio between the portion of the original volume of the reservoir filled with free gas and that portion filled with oil. Although it is ordinarily best to have as a starting point for the application of the equations, the original reservoir conditions, this is not absolutely necessary. In cases where little is known regarding actual original reservoir pressures, etc., any convenient subsequent time in the operations may be used, provided of course that all production and reservoir pressure data employed in the computations are referred to the time chosen as a starting point.

The effect of any water drive that may be active is evaluated in the following manner: In many cases, it may be assumed that the rate at which water enters a field is proportional to the pressure gradient that exists between the water-bearing strata and the oil and gas reservoir. For practical purposes, the value of this gradient would be the difference between the value of the original reservoir pressure and any subsequent value, or

$(p_o - p)$. Thus, the rate of water encroachment would be expressed:

$$\frac{dZ}{d\theta} = k(p_o - p) \qquad (16)$$

whence:

$$dZ = k(p_o - p)d\theta$$

and

$$Z = k\int_o^\theta (p_o - p)d\theta \qquad (17)$$

To evaluate k, it is assumed that over any reasonably long period of time, during which the reservoir pressures and the production rate may have remained constant, the volume of water encroaching into the oil and gas reservoir is equal to the volumetric withdrawal, that is, the volume of oil, gas and water, all under reservoir conditions of pressure and temperature, withdrawn. Thus, from Equation (16):

$$k = \frac{dZ}{(p^o - p)d\theta}$$

and from Equation (12):

$$\frac{dZ}{d\theta} = [u + (r_s - r_o)v]\frac{d(\Delta n)}{d\theta} + \frac{dz}{d\theta}$$

Combining these expressions:

$$k = \frac{[u + (r_s - r_o)v]\dfrac{d(\Delta n)}{d\theta} + \dfrac{dz}{d\theta}}{(p_o - p)} \qquad (18)$$

under the conditions that $\dfrac{d(\Delta n)}{d\theta}$, $\dfrac{dz}{d\theta}$ and $(p_o - p)$ are constant. In applying Equation (18) to evaluate k from the production data over some particular period of time, it must be kept in mind that the value of r_s, the net gas-oil ratio produced, to use, is that observed for the particular period and not the average from the beginning. Having determined the constant, k, the total influx of water over the entire period of production can be calculated, using Equation (17).

It is of interest to know what the reservoir pressure in a field under active water drive would have been had the water drive been absent. For

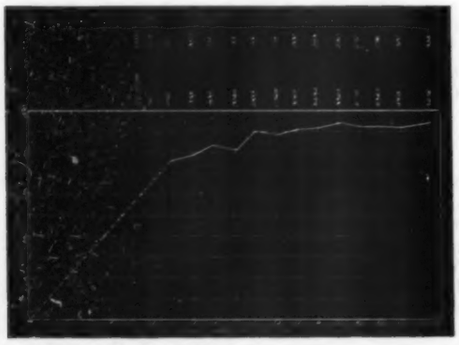

Figure 6—Calculation of quantity of water that was encroached into Conroe Field

determining this, the following procedure may be employed: The reservoir volume filled with oil and gas at any time is given by either of the expressions:

$$\text{Reservoir volume} = nu_o(1 + m) - (Z - z)$$

$$\text{Reservoir volume} = (n - \Delta n)u + \left[\frac{nmu_o}{v_o} - \Delta n(r_s - r_o)\right]v$$

Equating:

$$nu_o(1 + m) - (Z - z) = (n - \Delta n)u + \left[\frac{nmu_o}{v_o} - \Delta n(r_s - r_o)\right]v \qquad (19)$$

Had there been no water drive, $(Z - z)$ would be zero, and the terms u and v would have had values u′ and v′ corresponding to the pressure, p′, that would have prevailed in the absence of water drive. Therefore:

$$nu_o(1 + m) = (n - \Delta n)u' + \left[\frac{nmu_o}{v_o} - \Delta n(r_s - r_o)\right]v' \qquad (20)$$

Then, subtracting Equation (20) from Equation (19) and rearranging:

$$u' - u = \frac{(Z - z) - \left[\dfrac{nmu_o}{v_o} - \Delta n(r_s - r_o)\right](v' - v)}{n - \Delta n} \qquad (21)$$

Values of p′ may be assumed, the corresponding values of u′ and v′ substituted in Equation (21), and, by trial and error, the correct value of p′ determined.

A specific example illustrating the application of the equations developed in the foregoing will be presented after consideration has been given to the energy changes that occur during the course of production.

Reservoir energy may be defined as the energy available to produce oil. There are three sources of reservoir energy:

1. The expansive energy of the oil and the gas with which it is associated, both dissolved and free.
2. The energy supplied by water drive.
3. The energy of gravity, which is usually

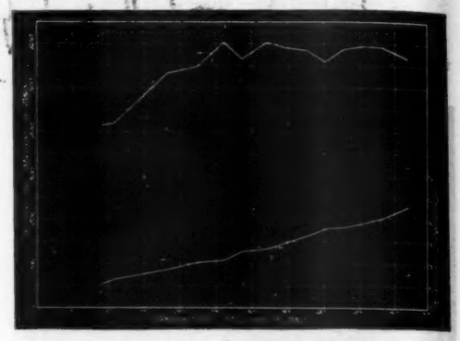

Figure 7—Active oil—Conroe

small and may therefore be neglected in most cases.

In producing oil, all of the expansive energy

TABLE 1—NOMENCLATURE

Symbol	Definition—	Expressed as
p_o	Original average reservoir pressure	Lbs. per unit area, absolute
p	Average reservoir pressure at any time, θ, after production begins	Lbs. per unit area, absolute
p_s	Atmospheric pressure	Lbs. per unit area, absolute
n	Units of "active oil" originally in reservoir	Volumes, measured at 1 atmosphere and 60° F.
g	Units of "active free gas" originally in reservoir	Volumes, measured at 1 atmosphere and 60° F.
m	Original ratio between reservoir space occupied by free gas and that occupied by oil	No units
V	Apparent original volume of reservoir	Volumes, under original reservoir conditions
Δn	Units of oil produced up to time, θ	Volumes, measured at 1 atmosphere and 60° F.
Δg	Change in units of free gas in reservoir up to time, θ	Volumes, measured at 1 atmosphere and 60° F.
Z	Units of water that have entered reservoir up to time, θ	Volumes, measured at 1 atmosphere and 60° F.
z	Units of water produced up to time, θ	Volumes, measured at 1 atmosphere and 60° F.
r	Gas-oil ratio, produced	Volumes gas per volume oil, measured at 1 atmosphere and 60° F.
r_o	Gas-oil ratio, originally dissolved	Volumes gas per volume oil, measured at 1 atmosphere and 60° F.
r_s	Gas-oil ratio, dissolved at time, θ	Volumes gas per volume oil, measured at 1 atmosphere and 60° F.
r_i	Gas-oil ratio, returned to reservoir	Volumes gas per volume oil, measured at 1 atmosphere and 60° F.
r_s	Gas-oil ratio, not produced	Volumes gas per volume oil, measured at 1 atmosphere and 60° F.
u_o	Original specific volume of oil and its original complement of dissolved gas	Volumes, under original reservoir conditions per volume of oil at 1 atmosphere and 60° F.
u	Specific volume of oil and its originally dissolved gas at any time, θ	Volumes, under reservoir conditions per volume of oil at 1 atmosphere and 60° F.
u_s	Specific volume of oil and its originally dissolved gas at 1 atmosphere and reservoir temperature	Volumes, at 1 atmosphere and reservoir temperature per volume of oil at 1 atmosphere and 60° F.
u_s	Specific volume of oil (1 phase) at any time, θ	Volumes, under reservoir conditions per volume of oil at 1 atmosphere and 60° F.
v_o	Original specific volume of free gas	Volumes, under original reservoir conditions per volume of oil at 1 atmosphere and 60° F.
v	Specific volume of free gas at any time, θ	Volumes, under reservoir conditions per volume of gas at 1 atmosphere and 60° F.
v_s	Specific volume of free gas at 1 atmosphere and reservoir temperature	Volumes, at 1 atmosphere and reservoir temperature per volume of oil at 1 atmosphere and 60° F.
θ	Time after production begins	Days or months
ΔE	Reservoir energy consumed up to time, θ	Unit length times lbs.

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associated with all of the oil and gas produced is consumed. In addition, a part of the energy of the remaining oil and gas is also used, the amount depending upon the reduction in the reservoir pressure that accompanies the production. Water drive or gas return operations, by maintaining the reservoir pressure, conserve the energy of the oil and gas remaining in the reservoir.

To develop the expressions for calculating the energy changes that attend production, the following assumptions and conditions have been set out:

1. Oil and gas are considered to have been produced when they are brought to one atmosphere absolute pressure at the temperature of the reservoir.

2. The process of production is considered to be isothermal.

3. The fluids in reservoirs originally are considered to be free gas, if any is present initially, and oil with its dissolved gas. The oil with its dissolved gas is assumed to behave as an homogeneous fluid. The pressure-volume relations of both the original free gas and the oil with its original complement of dissolved gas are assumed to be independent of the quantities of each that remain in the reservoir.

4. Realizing that complete equilibrium is not attained within oil and gas reservoirs, the "active oil," calculated as outlined in the foregoing, is used as a basis for calculation of the energy changes. The probable limitations involved in using the "active oil" in this manner will be discussed later.

In analyzing the reservoir energy change occurring on account of production, it is convenient to set up an imaginary thermo-dynamic engine, in which the net change in energy is equivalent to that brought about in the reservoir. Such an engine is illustrated in Figure 1 and the process involved is as follows:

1. The fluids in the reservoir are allowed to expand isothermally to one atmosphere absolute pressure, the piston moving from Position 1 to Position 2. The curve of isothermal expansion is represented as the line AB on the pressure-volume diagram in Figure 2. The work performed by the fluids is:

$\int_a^A pdv$, or the area, ABEH, under the line AB.

2. The fluids to be produced are discharged from the engine at atmospheric pressure, the piston moving from Position 2 to Position 3. The volumes of the fluids change by the amount that is produced, but the pressure remains constant at atmospheric. This operation is indicated on the p-v diagram as the horizontal line BC, and the work done on the fluids is $p_a\Delta v$, or the rectangular area BCFE.

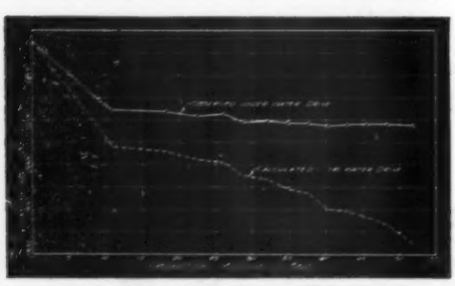


Figure 8—Average reservoir pressure decline—Conroe

3. The fluids remaining in the reservoir must be recompressed to the new reservoir conditions, that is, the pressure and volume of the reservoir after the production has been obtained, the piston moving from Position 3 to Position 4. The final volume of the reservoir is less than the original volume by the net amount of water that has encroached into the reservoir. If there is no water drive, the final and original volumes are identical. The isothermal compression curve is represented by the line CD in the p-v diagram, and the work done on the fluids by the area CDGF.

The net energy change is the difference between the work performed by the fluids and the work later done on, or resorted to, the remaining fluids. This is seen to be the area ABCJ less the area DJHG, the latter being the energy contributed by any water drive that may be present. Thus, the

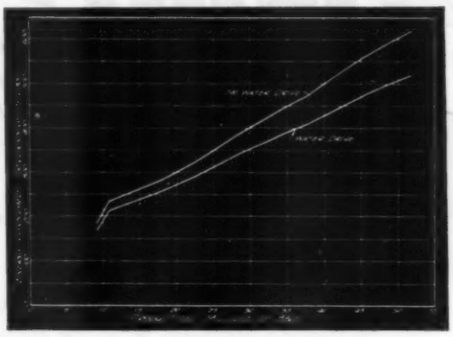


Figure 9—Total energy consumption—Conroe

change or consumption of reservoir energy is given by the expression:

$$\Delta E = ABEH - BCFE - CDGF \qquad (22)$$

The quantities above may be expressed as follows:

$$ABEH = n\int_{p_a}^{p_o} pdu + g\int_{p_a}^{p_o} pdv \qquad (23)$$

$$BCFE = p_a[\Delta nu_a + \Delta n(r_s - r_o)v_a] \qquad (24)$$

The energy remaining in the reservoir:

$$CDGF = (n - \Delta n)\int_{p_a}^{p} pdu + [g - \Delta n(r_s - r_o)]\int_{p_a}^{p} pdv \qquad (25)$$

Then:

$$\Delta E = n\int_{p}^{p_o} pdu + g\int_{p}^{p_o} pdv + \Delta n\left[\int_{p_a}^{p} pdu + (r_s - r_o)\int_{p_a}^{p} pdv\right] - p_a\Delta n[u_a + (r_s - r_o)v_a] \qquad (26)$$

If the energy consumption is to be expressed in units of energy per unit of oil produced:

$$\frac{\Delta E}{\Delta n} = \frac{n\int_{p}^{p_o} pdu + g\int_{p}^{p_o} pdv}{\Delta n} + \int_{p_a}^{p} pdu + (r_s - r_o)\int_{p_a}^{p} pdv - p_a[u_a + (r_s - r_o)v_a] \qquad (27)$$

where:

$$g = \frac{nmu_o}{v_o}$$

To calculate the extent to which any water drive that may be present contributes to the energy of the reservoir, the following equation applies:

$$\Delta E_w = (n - \Delta n)\int_{p'}^{p} pdu + \left[\frac{nmu_o}{v_o} - \Delta n(r_s - r_o)\right]\int_{p'}^{p} pdv \qquad (28)$$

which is closely approximated by the expression:

$$\Delta E_w = (Z - z)\frac{(p - p')}{2}$$

In Equation (28), p' is the reservoir pressure that would have prevailed in the absence of the water drive.

Under ideal operation, without considering gas return, the oil would be produced with only its dissolved gas and at such a rate that water drive would maintain the reservoir pressure at its original value. Under this operation, the energy consumption would be limited to that associated with the oil, and its dissolved gas, produced. Thus:

$$\Delta E_m = \Delta n\left[\int_{p_a}^{p_o} pdu - p_a u_a - p_o u_o\right] \qquad (29)$$

It is observed that the following information must be known before the energy relationships expressed by Equations (23) through (28) can be calculated.

1. Original store of oil and gas.
2. Data on oil and gas production.
3. Reservoir pressure behavior.
4. Data on the pressure-volume properties of the oil and gas, obtained through laboratory examination of samples. For the original oil content of the reservoir, the "active oil" as determined from the applicable one of the equilibrium Equations (12) to (15) is used in the energy expressions. As explained before, the calculated quantity of "active oil" is always less than the true total quantity of oil in the reservoir on account of the fact that the observed reservoir pressure decline is always greater than would have occurred if complete equilibrium were at all times established. By using the "active oil," or apparent quantity of oil contained in the reservoir, together with the observed decline in reservoir pressure, it is seen that compensating errors are introduced. The quantity of fluids that are considered to have expanded is too small, but the pressure range over which the expansion occurs is too large by about the same order of magnitude. It is probable, therefore, that the use of the "active oil" and observed pressure decline leads to a fairly good approximation of the reservoir energy consumed.

Example of Application

By way of illustrating the use of the equations developed for calculating the "active oil" and the energy consumption, the Conroe Field, Montgomery County, Texas, has been chosen as an example upon which the calculations will be made. This field has a free gas cap and there is considerable evidence to indicate that it is under active water drive. The case is therefore the most complicated for the application. The data on production and behavior of the average reservoir pressure are given in Figure 3. As noted, the gas-oil ratios are referred to a 2-pound pressure base. In Figure 4 are presented the pressure-volume data on the oil with its original complement of dissolved gas, determined in the laboratory on subsurface samples of the oil from the Conroe Field. Figure 5 contains similar data on the gas from the free gas cap. In the calculations to follow, it is assumed that the production and reservoir pressure data apply only to the main Conroe sand and not to both the Conroe and upper Cockfield sands.

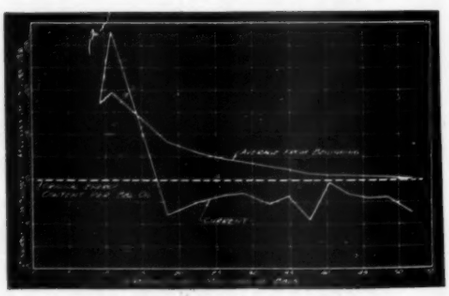


Figure 10—Energy consumed per barrel of oil produced—Conroe

The field originally contained, in the Conroe sand, about 181,225-acre feet of gas sand and 810,000-acre feet of oil sand (Engineering Report on the Conroe Field, to Conroe Operators Association, November 1, 1934, by E. O. Buck). Therefore,

$$m = \frac{181{,}225}{810{,}000} = 0.224$$

During the period, October 1, 1934, to April 1,

1935, the production rate and reservoir pressure remained substantially constant. The data for this period are as follows:

Reservoir pressure, p .	2,090 lbs./sq. in.
Pressure differential, $(p_o - p)$	185 lbs./sq. in.
Production rate, $d(\Delta n)/d\Theta$	44,100 bbls./day
Average volumetric displacement per bbl. oil produced,* $u + (r_s - r_o)v$	9.09 cu. ft./bbl.
Average volumetric displacement, $\frac{dZ}{d\Theta}$ ..	401,000 cu. ft./day
Rate of water encroachment	401,000 cu. ft./day
$k = \frac{1}{(p_o - p)} \cdot \frac{dZ}{d\Theta}$	2,170 cu. ft./day/lb./sq. in.

*Water production small and was neglected.

In Figure 6, the curve of pressure drop against time is plotted, from which the expression:

$$\int_0^{\Theta} (p_o - p)\, d\Theta$$

is obtained graphically. From this, Z is calculated from Equation (17).

A summary of the calculations involved in determining the original quantity of "active oil" in the reservoir by Equation (12) is given in Table 2. "Active oil" is plotted against production in Figure 7, wherein it is noted that the quantity has ranged between 550,000,000 and 600,000,000 bbls. for some time. Up to September 1, 1935, between 8 and 9 per cent of the original "active oil" had been produced. It is pointed out that the Conroe Field has a slow rate of pressure decline, which may be due to one of two causes: First, a very high content of "active oil," or second, a lower "active oil" content coupled with a powerful water drive. To be conservative, the highest rate of water intrusion compatable with the data was used, which, in turn, makes the figures for "active oil" minimum values.

In Figure 8, the observed record of the average reservoir pressures is compared with the values, calculated from Equation (21), that would have prevailed had there been no water drive on the field. It is seen that the average reservoir pressure as of September 1, 1935, would have been 1,820 lbs./sq. in. instead of the value observed, 2,087 lbs./sq. in. It is apparent that the water drive has been of considerable importance in maintaining the reservoir pressure.

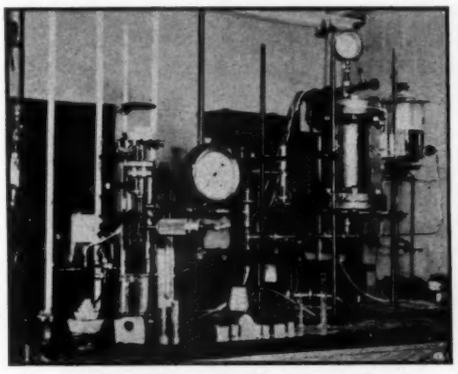
A summary of the calculations involved in determining the energy changes that attended production is also given in Table 2. The calculated values of the "active oil" were used in these computations. The total energy consumption, expressed in foot pounds, is plotted against the production in Figure 9. The consumption of energy, assuming the water drive had been inactive, is also shown in Figure 9. The energy consumed up to September 1, 1935, would have been between 19 and 20 per cent higher had the water drive been inactive. In Figure 10, the reservoir energy consumption is expressed also as foot pounds per barrel of oil produced. The original energy content of the reservoir, including both the energy associated with the oil and its original complement of dissolved gas and the original free gas was 9.97 million foot pounds per barrel of oil. In Figure 10, it is seen that the energy consumed per barrel of oil produced was much higher during the early stages of production than the original energy content, per barrel of oil. This was caused by the waste production. Currently, the consumption of energy is even less than the original content per barrel due to the fact that very few wells now produce with excessive gas-oil ratios. Most of the oil is produced with its dissolved gas only.

Where sufficient and proper data on production, reservoir pressure behavior, and the properties of the oil and gas are at hand, it is believed that the methods outlined herein permit the calculation of the approximate quantity of oil contained in the interconnected and permeable parts of a reservoir. Although the importance or significance of this quantity, termed "active oil," is not completely understood, it does appear to be of considerable interest. Its application at present seems to be in providing a means by which equilibrium expressions can be employed to calculate the effect of any natural water drive that may be present, to calculate the approximate pressure changes to be expected under various rates of flow in a water drive field, to determine the benefits to be derived from gas-return operations, or to calculate the changes in reservoir energy that occur during the course of production. It is possible that the procedure may prove to be useful in estimating reserves, although its value along these lines cannot be determined until it has been applied in a number of cases so that comparison can be made with actual performance.

The application of production and subsurface pressure data in studies of the nature outlined herein points out their usefulness, and emphasizes the need for keeping even more adequate production and reservoir pressure records than are now being obtained.

Laboratory Testing of Sands Coming into General Use

Terms such as "effective porosity," "permeability," "per cent oil saturation," and "oil content reserves" may soon be in common oil field usuage, judging from the growing trend of research and development in sand studies.



Type of instrument used in making permeability tests in laboratory of the Geologic Standards Company

Core analysis and sand studies usually are made to determine the porosity, permeability, and oil and water saturation of different sections of a sand as represented by a core. Porosity is a measure of the storage capacity of a sand, and can be expressed as a percentage of the volume of sand or in terms of barrels for any number of acres of a lease. For example, if it were known that a 10-acre unit or lease had 20 feet of sand and porosity tests showed an average of 18 per cent, the ability or capacity of the sand to hold fluid, gas, oil, or water, would be to the extent of 279,320 bbls. Porosity tests offer accurate means of determining the "size" of the reservoir, and the tests can be checked to less than 1 per cent of the value. Effective porosity considers only the connected pore spaces, while the absolute porosity also considers any unconnected pores. The effective porosity is usually the type determined.

The old oil field term of "texture" of a sand, or whether a sand is "tight" or "loose" is given a new and quantitative significance through the growing use of the permeability test as made in the modern petroleum laboratories. In one manner of speaking, permeability is a measure of the "tightness" or "looseness" of a porous body such as an oil sand. Technically, permeability is the property of fluid conductance of a sand, the unit being the darcy and the millidarcy. A very "tight" sand will have a permeability of only a few millidarcys, a "loose" sand will run into the hundreds. A sand of two millidarcys will conduct twice as much fluid as one of one millidarcy, with other conditions equal between the two. Thus a sand of 100 millidarcys can flow 100 hundred times as much oil or gas on production, or will take in 100 times as much gas or water in repressuring or water flooding, as can a sand of one millidarcy, with all other things equal. The significance and use of permeability data in well spacing and proration and in developing secondary recovery projects is considered a very important criterion and a profitable test to make for any sand.

Oil content of a sand, as represented by cores, is determined from samples sealed in jars immediately after the core is taken. The tests are made in batteries of special stills designed for the purpose, and also in sets of glass extractors in which the contents of the test samples are removed by solution into special solvents. Results can be tabulated either as the per cent of oil saturation of the pore spaces, or as so many barrels of oil per acre-foot per acre.

Dr. Hans Tropsch, Famous Oil Research Chemist, Dies

The death of Dr. Hans Tropsch, associate director of research for the Universal Oil Products Co., in Essen, Germany, October 8, removed one of the world's most prominent authorities on oil chemistry, particularly the catalytic hydrogenation of oil and coal to make motor fuels. He worked with Franz Fischer in developing a process to make motor fuel from carbon monoxide and hydrogen, and plants are now being built in Germany to operate this process.

Born October 7, 1889, Dr. Tropsch was graduated in 1912 from the German Technische Hochschule in Prague, and received his doctor's degree from the same school in 1913. From 1920 to 1928 he was associate director of the Kaiser Wilhelm Institute for coal research, in Mulheim-Ruhr. In the latter year Dr. Tropsch was commissioned by the Czechoslovakian government to organize and

DR. HANS TROPSCH

head a national coal research institute in Prague.

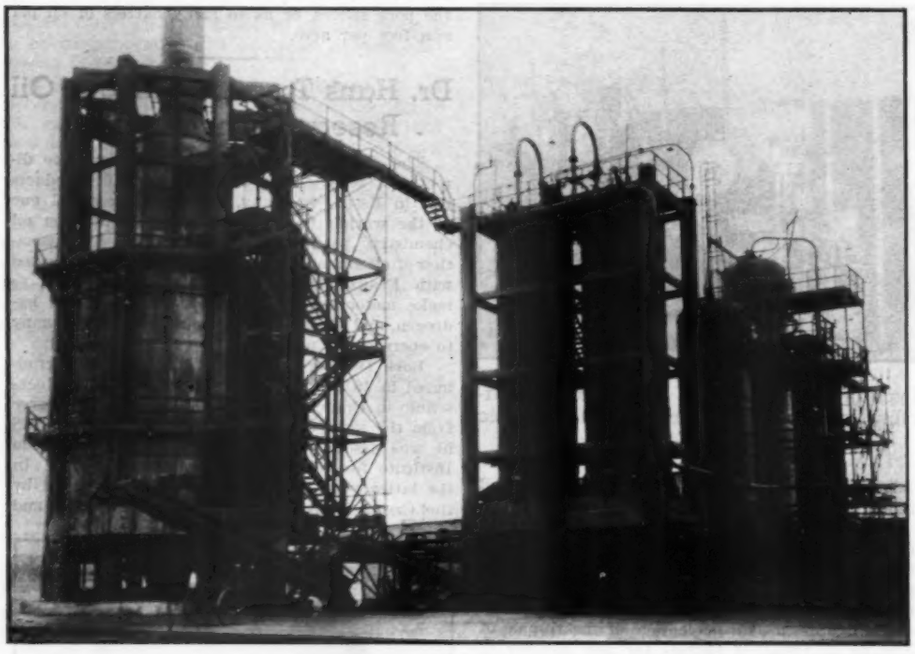
He was director of that institute until 1931 when he came to this country to join the research staff of Universal Oil Products Co. In addition to his work with Universal, he was also a professor in chemistry at the University of Chicago and at Armour Institute, Chicago.

Cracking Unit at The Texas Company's West Dallas Plant Makes Long Run

By R. G. COLLINS
The Texas Company

A DeFlorez cracking unit at the West Dallas refinery of the Texas Co. recently completed an uninterrupted run of 2,964 hours, or 123½ days. This run is considerably longer than any previously recorded, and is believed to constitute a record for cracking equipment.

This particular unit has a capacity of from 1,250 to 1,500 bbls. per day of naphtha, and can be operated entirely to coke, entirely to heavy fuel, or to both products simultaneously. During most of the recent run, operation was entirely to coke.



DeFlorez cracking unit at West Dallas plant of Texas Co. where record run was made

The equipment comprising the unit consists of a Type 50 DeFlorez Upshot Heater, two 10x40-foot coke drums, two 10-foot diameter fractionating towers, a naphtha stabilizer, a gas absorption tower and the usual auxiliary equipment—pumps, condensers, coolers, control equipment, etc.

The cold charge is introduced at an intermediate point to No. 1 tower, which receives the overhead vapors from the coke drums. Recycle gas oil reflux, introduced near the top of this tower, facilitates accurate control of temperature at the top of the tower. This is important in that the cleanliness of recycle gas oil from the bottom of No. 2 tower depends upon accurate control of the temperature at the top of No. 1 tower. Recycle gas oil from No. 2 tower must be very clean to permit of its heating to the desired heater outlet temperature, which was maintained at approximately 1,018 degrees during this run. The high temperature recycle stream after passing through the heater is combined at the heater outlet with backtrap from No. 1 tower, which consists of the unvaporized portion of the charge and the heavy ends in the coke drum overhead. The combined charge enters the coke drum at a temperature of approximately 920° F. and a temperature of approximately 860° F. is maintained in the coke drum. Coke drums are operated at approximately 225 pounds pressure.

When operating to fuel a continuous stream is drawn from the bottom of No. 1 tower. This stream is flashed in equipment not directly a part of the unit. The remainder of the equipment comprising the unit is operated more or less conventionally.

The coke drums can be filled to a height of 30 to 35 feet. From plant experience with widely different charging stocks, the time required for filling the drums to this height can be satisfactorily predicted. When a coke drum is filled, the charge is switched to the empty drum and the filled drum is blanked off from the operating equipment by means of ball type blinds, which were developed especially for this service. After a brief steaming period, the drum is cooled with water and the coke is removed.

During the run a total of 183 coke drum switches were made at intervals of 15 to 16 hours, and the coke removed amounted to 21,672,000 pounds. The coke was of good merchantable quality, averaging 7 to 8 per cent combustible matter.

OPERATING DATA ON RECORD DeFLOREZ RUN

Duration of run:

Unit fired	12:00 midnight, April 16
Fires cut	11:30 p.m., August 18

Composition of charge:	Bbls.	Per cent
Fuel residuum	129,501	49.76
Topped crude	43,416	16.68
Virgin gas oil	53,400	20.52
Slop oils and miscellaneous stocks	33,926	13.04
Total	260,243	100.00

Tests on oil charge:

Gr.	Bs.	CR.	I.B.P.	5%	10%	20%	30%	40%	50%
24.1	0.4	4.91	314	442	480	538	593	636	670

Yields:	Bbls.	Per cent
Naphtha distillate	151,517	58.22
Heavy fuel oil	9,910	3.81
Coke (400 lbs. per bbl.)	54,180	20.82
Gas (1,600 cu. ft. per bbl.)	56,549	21.73
Total yield (volume basis)	272,156	104.58

Tests on naphtha:

Color CFR Gr.	Say.	O.N.	I.P.	10%	20%	50%	90%	E.P.
58.0	16	66	80	139	171	252	357	400

The run was terminated due to coking of the transfer line, resulting from fluctuations in heater outlet temperature while minor adjustments were being made to the automatic equipment which controls the heater outlet temperature. Until these fluctuations occurred, the unit was operating normally at maximum charge rate.

Similar units at other refineries of the Texas Co. have recently made uninterrupted runs of from 1,600 to 2,400 hours. It is expected that shortly runs of even longer duration will be made.

G. B. Murphy Explains Catalytic Polymerization to Engineers

George B. Murphy, manager of the research and development laboratories of Universal Oil Products Co., on October 9, addressed the Institute of Chemical Engineers here, on "Catalytic Polymerization as a Means of Producing Motor Fuel."

Mr. Murphy traced the development of the U.O.P. catalytic polymerization process from the laboratory stage, in which 2 cubic feet of cracked gas per hour were processed, up to the present successful large-scale commercial stage where polymer gasoline is produced at the rate of 5 gallons or more per 1,000 cubic feet of gas.

New Type of River Barge Uses Separate Cylindrical Tanks

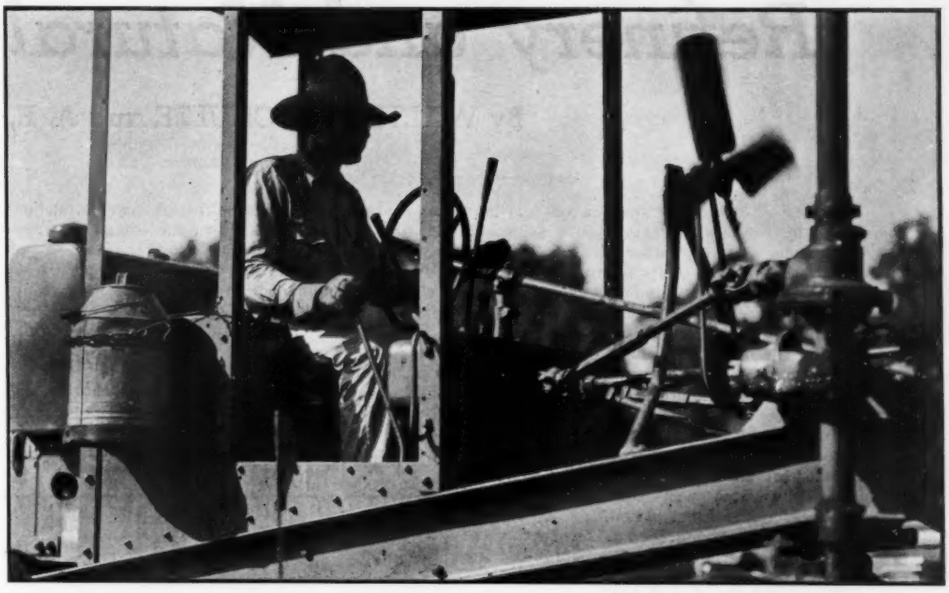
The American Barge Line Co. has inaugurated the use of ordinary cylindrical tanks built into an openhopper type of barge for delivering bulk oil at Mississippi River points. The barge is constructed according to the design followed in building barges for the transportation of cotton bales between Memphis and New Orleans and is 158 feet in length, 35 feet wide and has an overall depth of 11 feet. To accommodate the cylindrical tanks, which are 14½ feet in diameter and 40 feet in length, the hopper was divided into three equal compartments, each of which has two tanks with the necessary piping securely anchored in place.

The advantages of this method of construction are said to be in reducing evaporation losses, enables the delivery of different kinds of products without chance for contamination through leakage and the barge may be converted into other service without great expense. The barge pictured here was built by McClintic-Marshall Corp., a subsidiary of the Bethlehem Steel Co.

OPERATING IDEAS

Rig Front with Many Features

The accompanying photograph shows a new steel rig front installation in the Little River Field of the Greater Seminole area. There are several noteworthy features incorporated in this job. This front is set on concrete foundations, there is a concrete floor in the derrick, belt hall, rod walk and engine house. The only wood used in the construction of this entire job is in the framework of the belt hall and engine house. One noticeable feature is the beam walk and stairway constructed of tank-walk material and assembled by crews of tank builders. Safety is one of the features of this walkway, as all floor treads are "safety punched", for in punching a series of 1/4" holes in the floor plates there is a resultant burr raised in the tread which supplies friction for surer footing. Another novel idea is the chemical feed pump located under the samson post and powered by a wire connected to the walking beam the proper distance from the saddle to give the pump the desired length of stroke. The pitman on the small pump is counterweighted to pull the small pump down on the down stroke of the walking beam. The small chemical line from this feeder to the lead line is inside a 2-inch conduit beneath the concrete floor, and as all lines leading from the well to tanks and gas gathering systems are placed in large conduits from the cellar to outside the derrick there are no lines or connections on the floor to present an accident hazard, or make an untidy appearance. The headache post in this particular case is a piece of junk 6-5/8" casing securely concreted into the main sill, and held in a rigid position by 2-inch pipe braces to the samson post and derrick corner.

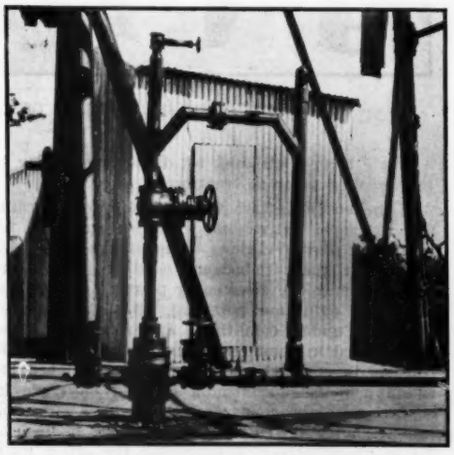


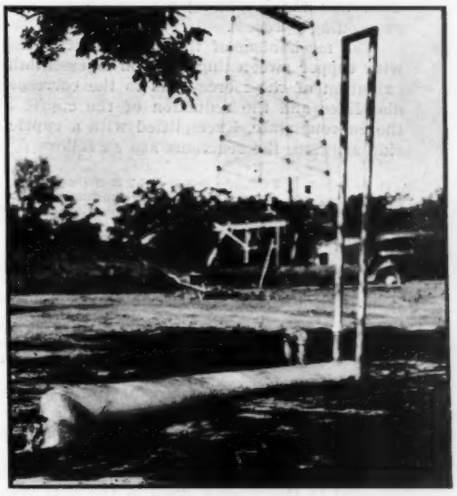
Defeating Hot Days with Auto Fan Mounted on Grader

This oil company road grader operator believes in working with comfort on hot East Texas days, therefore he has mounted a large 4-bladed fan on the front part of the grader. The fan is driven from the transmission through a V-belt drive. The axle housing for the fan is welded to a plate from which two supports extend and these are securely bolted in place on opposite sides of the main grader frame to form a rigid support for the fan.

Simple Well Hookup

This picture shows a neat well hookup with all connections above the concrete derrick floor. The tubing head is provided with two-way connections and the oil and gas can be produced through the annular space between the tubing and casing or through the tubing as desired. By using the angle joints in the flow line above the top valve friction is reduced within the pipe. The horizontal flow line across the floor is provided with check valve to prevent back flow from other wells entering this line, as all wells on this lease produce into a common pipe line leading to the tank battery.





Gasoline Drips

The accompanying picture shows a simple form of accumulator for drip gasoline and is made out of old casing welded to form an accumulation chamber. The incoming gas passes into the top of the vertical section of casing through the low connection shown and the fluid drops out and the dried gas passes out through the tall inverted "U" pipe. The fluid cannot escape through this elevated section of pipe but the gas can. Drip gasoline is drawn off through a pet cock on the pipe and is welded into the lower side at the end of the casing.

Copper Is Economical for Sweetening Refinery and Natural Gasolines

By WALTER A. SCHULZE and A. E. BUELL
Petroleum Engineering Research Co.
Phillips Petroleum Co.

The term "sweetening" has been thought of by refiners for many years as practically synonymous with "doctor treating," as the plumbite method or one of its many modifications has been almost universally used as the final treatment of sour gasolines. The only other type of sweetening processes having general acceptance are based on the use of hypochlorite solutions, and these are applied mainly to natural gasoline. Recently, however, certain processes utilizing copper solutions as the sweetening media have been developed which bid fair to replace the plumbite and hypochlorite methods. The operation of several commercial units over a considerable period of time has proven so successful that many other units are now under construction.

Some years ago during the course of extensive desulfurization experiments on mercaptan-bearing naphthas it was observed that certain solutions of copper salts, instead of behaving in the manner expected, invariably oxidized all of the mercaptans to disulfides. This was not in accord with the generally accepted opinion that in the reaction of mercaptans with copper salts one-half of the mercaptans will be oxidized to disulfides and the other half will be converted to oil soluble cuprous mercaptides. Further investigation showed that whereas most copper solutions performed in the well known manner, it was possible to prepare certain solutions which almost instantaneously converted the cuprous mercaptides to disulfides. This was the beginning of the so-called "copper sweetening" process.

The mechanism of the reaction of mercaptans with copper sweetening solution is essentially the oxidation of the mercaptans to the corresponding disulfides and the reduction of the cupric ion to the cuprous state. Exemplified with a cupric chloride solution, the reactions are as follows:

(1) $4\,R\text{-}S\text{-}H + 2\,CuCl_2 \rightarrow R\text{-}S\text{-}S\text{-}R + 2\,R\text{-}S\text{-}Cu + 4\,HCl$
Mercaptan; Cupric chloride; Disulfide; Cuprous mercaptide; Hydrochloric acid

(2) $2\,R\,S\,Cu + 2\,CuCl_2 \rightarrow R\text{-}S\text{-}S\text{-}R + 4\,CuCl$
Cuprous mercaptide; Cupric chloride; Disulfide; Cuprous chloride

Combining the two stages, the equation becomes:

(3) $4\,R\text{-}S\text{-}H + 4\,CuCl_2 \rightarrow 2R\text{-}S\text{-}S\text{-}R + 4\,CuCl + 4\,HCl$
Mercaptan; Cupric chloride; Disulfide; Cuprous chloride; Hydrochloric acid

Cuprous chloride formed in the reaction, although practically insoluble in water, is quite soluble in solutions containing a high concentration of chloride salts. The hydrochloric acid is retained also by solution. These two factors are highly essential to the process since in the next step the cuprous chloride and the hydrochloric acid are reconverted to cupric chloride by oxidation with air. The equation for this reaction is:

(4) $4\,CuCl + 4\,HCl + O_2 \rightarrow 4\,CuCl_2 + 2\,H_2O$
Cuprous chloride; Hydrochloric acid; Oxygen; Cupric chloride; Water

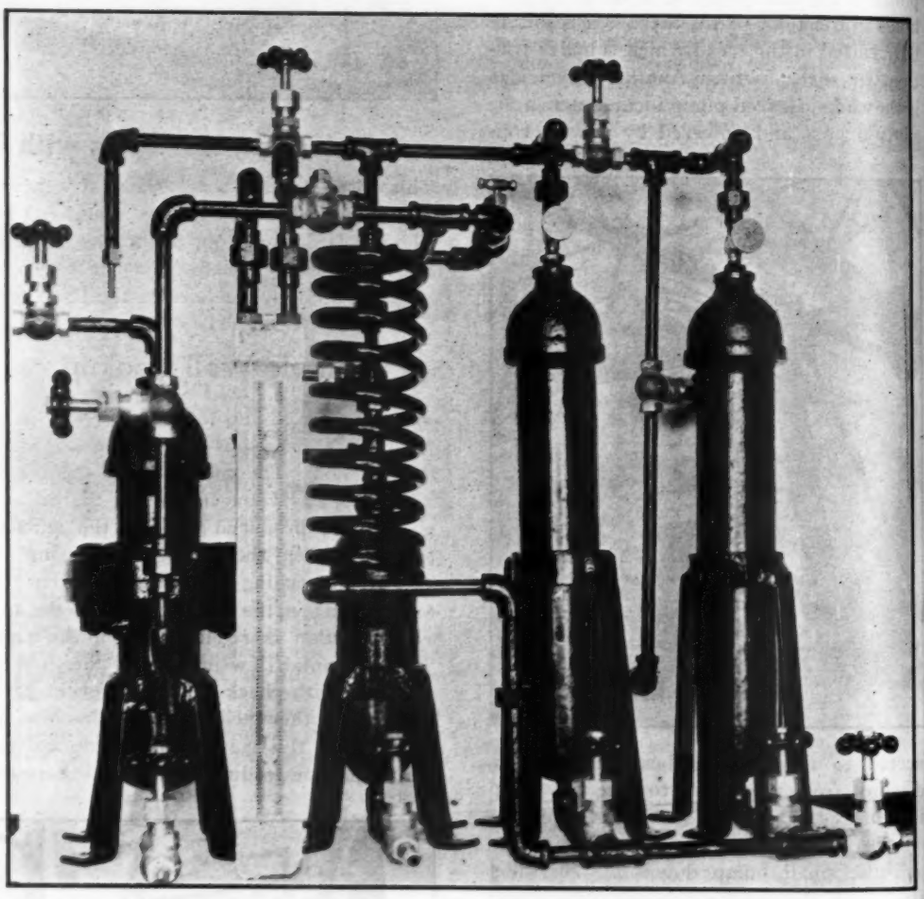
Addition of equations (3) and (4) gives the simple expression

(5) $4\,R\,S\,H + O_2 \rightarrow 2\,R\text{-}S\text{-}S\text{-}R + 2\,H_2O$
mercaptan; Oxygen; Disulfide; Water

from which it is seen that no chemicals, other than oxygen which in practice is obtained from compressed air, are used up in the process.

In the study of the various copper solutions it was found that only those solutions containing relatively high concentrations of chloride or bromide reacted in the manner described above. Furthermore, it was found that the concentration of cupric copper was relatively unimportant and that rather low concentrations were adequate. Thus, it became possible in the commercial application of this sweetening reaction to use a solution prepared from the very cheap chemicals, copper sulfate and sodium chloride. In this manner the high concentration of chloride needed in the treating solution is obtained from the ordinary grades of common salt.

The regeneration of the solution proceeds rapidly, as might be expected for such cuprous solutions. Since the amount of air needed is small, the regeneration of the solution may be accomplished simultaneously with the sweetening operation, in a single step, if desired, by dissolving the air in the gasoline prior to treatment.



Laboratory unit for studying procedure of sweetening with copper salts

Considerable effort was directed to determining the most active and desirable solutions for treatment of the various types of gasolines with the result that it became possible to measure quantitatively the sweetening power, or, more exactly the oxidation potential, of various copper solutions under conditions approximating those encountered in commercial operation. The method consists in measuring the potential developed between a polished platinum or gold electrode in contact with the copper solution and a saturated calomel half-cell. This tool has shown itself useful in quantitatively determining the effect upon the oxidation potential of temperature changes, concentration changes, spending, and of various impurities which conceivably might appear in the copper solution. This electrode system also serves as an excellent indicator in the titration of cuprous copper in the solution.

In the early work with the copper sweetening process it was noted that certain cracked gasolines following treatment with copper reagents exhibited a progressive tendency to discolor in spite of their apparently copper-free condition. It was assumed, however, that faint traces of copper compounds such as the naphthenates and the like served as the oxidation catalysts. Subsequent research produced a stabilizing treatment which if administered to such cracked gasolines immediately following sweetening entirely prevents any color instability or other deterioration of the product. This stabilizing treatment consists in contacting the gasoline with sodium sulfide solution, a waste product at most refineries. Thus, it has been found possible to apply the copper sweetening process to the most unstable cracked gasolines as well as to the others, with results considerably better in many instances than those obtained by the plumbite treatment of such products.

The copper sweetening process as outlined above involves the use of an aqueous solution at

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normal atmospheric temperatures. The sour gasoline, free of hydrogen sulfide, is contacted and sweetened with the treating solution in a continuous manner, and the treating solution either simultaneously or subsequently regenerated by means of air. Operating in this manner the solution lasts indefinitely; in the oldest commercial unit the solution has not been dumped during more than four years of operation. Therefore, it is evident that no permanent spending of the solution takes place.

In the past refiners have been troubled more or less with elementary sulfur in some of their sour products, especially the vapor recovery gasoline. When sweetening with plumbite solutions this sulfur, if not present to too great an extent, merely takes the place of a part of the sulfur added in the usual doctor treatment, and in this way the products are made to pass the corrosion test. This, of course, has been a constant source of annoyance and has required much additional checking of the gasolines. Now in copper sweetening free sulfur is not used in the process, so such corrosive sulfur must be removed either prior to or subsequent to the sweetening step. In this connection it is our good fortune to announce that it was found several years ago that free sulfur can be easily removed from gasoline at normal temperatures by contacting with aqueous solutions of alkaline polysulfides as defined in a patent soon to issue. Such solutions are readily available and very inexpensive. Hydrogen sulfide, if present in the gasoline, may be removed along with the elementary sulfur in a single step. Operation of a number of such units over a long period has shown that there is no longer a "bugaboo" attached to the removal of elementary sulfur from gasoline. Thus, the presence of elementary sulfur does not handicap copper sweetening in any manner.

Copper sweetening unit for treating 1,000 bbls. of vapor recovery gasoline daily

One of the biggest problems in the early development of this new process was the corrosiveness of the treating solution. Extensive investigation has evolved means of getting around all of these difficulties. The present design for treatment with the aqueous solution forms a neat compact unit, very small indeed when compared with the agitators used in doctor treating.

Several modifications of the original process have been devised to meet the conditions encountered in the treatment of the various types of gasoline. One of the most important is the development of a "solid" treating process especially adapted to natural gasoline and to refinery straightrun and vapor recovery gasolines. The reagent is prepared by impregnation of adsorbents such as fuller's earth and the like with the copper solutions. The sour gasoline is contacted with the reagent by filtration. The filter bed is formed by supporting the reagent on a layer of mineral wool inside a steel filter tank protected from corrosion by a coat of resinous varnish. Where the solid reagent is used it is continuously regenerated in place by dissolving a pre determined amount of air in the sour gasoline before it enters the filter. The gasoline is sweetened so quickly that almost unbelievable flow rates are possible. These units, therefore, are quite small as compared with the conventional sweetening plants.

Advantages of New Process

The advantages of the copper sweetening processes over the older methods are almost too numerous to mention. Treatment with plumbite solution in any form has always been cumbersome and unsatisfactory, due to the round-about method of oxidizing mercaptans to disulfides. The amount of sulfur to be added to the gasoline has to be redetermined from batch to batch and from day to day. Frequently, there is much difficulty in getting the "doctor" properly broken out, with the result that excess sulfur is added and the gasoline then becomes corrosive to the copper strip test. Even under the best conditions there must be a slight excess of sulfur present and such sulfur is known to cause deterioration in certain other properties of the fuel. Still further, there is the considerable nuisance of the solid lead sulfide with which to contend. It is well known that emulsion troubles present themselves when solids are present in treating solutions which are contacted with oils, and doctor treating is no exception to the rule. Furthermore, the separation of the treated gasoline from the doctor sludge always has entailed losses of considerable magnitude. None of these difficulties or losses are experienced with the continuous method of sweetening by means of a copper solution always free of solids, forming no emulsions and which almost instantly converts the sour gasoline to a sweet product.

Some of the more important advantages of copper sweetening are outlined below.

1. Saving in Chemical Costs—Since only air is used up in the conversion of the mercaptans to disulfides, it is evident that the only chemical cost is that due to mechanical loss of the treating solution. This loss has been almost negligible in the commercial application of the process. The cost of doctor treating, or of hypochlorite treating, is quite variable, depending to a great extent on the amount of mercaptans in the gasoline and on the means of regenerating the doctor solution. But in any instance the chemical cost has been a big item in the treating cost to every refiner and natural gasoline manufacturer. Almost all of this cost is eliminated by the new process.

2. No Loss in Gasoline During Treatment—As pointed out above, the doctor sludge prevents clean-cut separation of the gasoline from the spent treating solution and some gasoline is always carried out with such solution. These losses of gasoline have been variously estimated and a figure near 1 per cent has been generally accepted. In a few instances, where centrifuging of the sludge has been resorted to, the loss is perhaps less than one-half per cent. The cost of centrifuging, however, must be taken into consideration in those cases. A treating loss of 1 per cent actually means a treating cost of over 2 cents per barrel. No treating loss occurs in the new copper sweetening processes.

3. No loss in Octane Number During Sweetening—It has been known for some time that when certain gasolines were sweetened with doctor solution there was an appreciable drop in octane rating, the drop amounting sometimes to two or more octane numbers. Tests of many samples of gasolines treated both with copper and doctor solutions have shown no loss occurring during copper sweetening and an average loss of approximately 0.5 an octane number on doctor treatment of cracked gasolines. In terms of added tetraethyl lead, such a loss amounts to well over 1 cent per barrel, which should be charged to doctor treating.

4. Retention of Natural Gum Inhibitors in Gasoline—The so-called natural gum inhibitors in gasolines are hydroxy derivatives which are more or less completely removed by strong caustic solutions. Thus, it is commonly noted that the oxygen bomb induction period of many gasolines is materially shortened during the treatment with the strongly alkaline doctor solution. It is possible in many instances to avoid entirely the use of caustic solutions in the copper sweetening process, thereby retaining such natural gum inhibitors as are present in the gasoline.

5. Improvement of Quality of Product—In sweetening a gasoline with a copper reagent, the mercaptans are converted completely to disulfides whereas in doctor treating, and especially in those of the lead sulfide or continuous type, there are formed alkyl polysulfides which are extremely objectionable. These polysulfides result in a gasoline becoming corrosive to a copper strip after exposure to light for a very brief period. Also, tertiary mercaptans lead to the formation of objectionable compounds during hypochlorite treating. None of these difficulties are encountered in copper sweetening, the reaction proceeding smoothly and completely to the disulfide form.

6. Decreased Operating Costs.—A marked reduction in operating costs has been made through the replacement of doctor and hypochlorite units with the new copper sweetening units. The extent of this reduction is discussed in the section on commercial installations.

7. Low Investment—New equipment for either the solution or solid copper treating processes costs less than that for the older methods of sweetening.

1. Wet Method—The first commercial copper sweetening plant has been in operation since early in 1931. This unit employing the solution method has treated from 5,000 to 10,000 bbls. daily of refinery straightrun gasoline throughout this period of more than four years. At the beginning the mercaptan sulfur content of the gasoline frequently was higher than 0.05 per cent and averaged 0.03 per cent, yet no difficulty was experienced in obtaining a completely sweetened and stable product. The mercaptan sulfur content has been much lower, of course, since desulfurization of the gasoline for the purpose of lowering the tetraethyl lead requirement was begun. The operation of this plant has been completely satisfactory with both the high mercaptan and low mercaptan gasolines.

Enormous savings have resulted from the application of copper sweetening to this straightrun gasoline. The chemical cost was reduced immediately by well over 90 per cent and the operating costs were also materially lowered. Losses in gasoline were eliminated, and the quality of the product was improved.

As copper solutions attack metal rapidly, the treating solution is necessarily handled in corrosion resistant equipment. In this first plant cypress tanks are used for the preparation and regeneration of the solution. Contacting and settling is a continuous operation in the treating tank which is also of wood construction, the pressure during treatment being only a few pounds. The solution

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Although no particular difficulties have been encountered with this wooden equipment, it has since been found possible to replace the wooden structure entirely with steel tanks lined with corrosion resistant materials. Such a unit, now under construction, is to be used in treating cracked gasoline. These newly designed plants will permit the treatment of higher vapor pressure gasolines such as vapor recovery or natural by the solution method, if such is desired.

2. Solid Copper Reagent—The first commercial installation utilizing the solid method of copper sweetening was made at a natural gasoline plant where much difficulty was being experienced in the hypochlorite treatment of that very high mercaptan sulfur gasoline. The process proved to be entirely successful. It eliminated all of the difficulties of corrosive and color unstable gasoline resulting from chlorination during the previously used hypochlorite process. Also, on a basis of reduction in chemical costs alone, the investment was paid out in 35 days.

In the original installation at this plant, the gasoline was treated in batches by pumping from sour storage, through the treating system and thence to sweet storage, as was done when the hypochlorite method was used. Changes were subsequently made so that the sour gasoline could be pressured directly from the fractionator through the treater to sweet storage, thus eliminating storage and pumping of sour gasoline.

As the flow from the fractionator is not uniform an automatic control was installed to proportion the air added to the gasoline before it enters the treater, making the whole operation entirely automatic. No attention is given the treater over very long periods. The small amount of air used is completely soluble in the gasoline and has no discernible effect on the vapor pressure.

The most recent operating data for the plant mentioned above is given herewith (present reagent placed in treating chamber on April 20, 1935):

Cost of reagent chemicals (approximately 50 per cent is for transportation charges to this plant)	$80.00
Labor costs for preparing reagent and placing it in treater	25.00
Total cost	$105.00
Amount of gasoline treated up to October 5, 1935 (gallons)	2,190,000
Cost per 1,000 gallons	$0.048
Average cost per 1,000 gallons for hypochlorite treating of this exceptionally high mercaptan sulfur gasoline	1 35

Although this reagent has been in use over six months, no loss in its activity has yet been noted. Attention is directed to the magnitude of the savings which have resulted from the replacement of the hypochlorite method by this solid copper process. It should be noted, too, that the cost of sweetening by this method is already less than 5 cents per 1,000 gallons.

The data from another plant is given also (present reagent placed in treater on May 26, 1935):

Cost of reagent chemicals	$16.00
Labor costs for preparing reagent and placing in treater	12 00
Total cost	$28.00
Volume of gasoline treated to October 5, 1935 (gallons)	1,400,000
Cost per 1,000 gallons of gasoline	$0.020

In this instance the cost of sweetening is already down to 2 cents per 1,000 gallons. Since the same filling of treating agent remains in the treater and to date has shown no loss in activity, the minimum treating cost of processing gasoline by this method is not known. These figures are so much lower than any of the methods ever before used that they seem almost unbelievable. Certainly it is difficult to conceive of any other method which might even approach this copper sweetening process on the basis of either chemical or operating costs.

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PROBLEMS FROM READERS

Edited by T. F. Smiley

Cement Job Is a Failure and Water Shutoff Problem Is Unsolved

In drilling a well here we have come on this problem: We started a 10-inch hole and at 300 feet set 8-inch casing. We reduced the hole to 8 inches and on drilling a few feet farther found the surface water was not shut off. We tried to pull the casing, but could not. We then drove it a few feet, but still did not shut off the water. We then tried to cement it, using 15 bags of ordinary cement and mixing it with water only. After we had put it in the water stood within 10 feet of the top. We waited four days and started drilling. We drilled about 100 feet below the bottom of the casing. The cement broke loose and again filled the hole. We are now at about 800 feet. We don't want to set 6⅝-inch at this time, but want to shut off the water with this 8-inch. How can this be done? What is the reason for the cement not setting? It was new cement. We can bridge the hole below our 8-inch and put in clay 20 or 30 feet to hold the cement and try it again if that course should seem the best to follow.—W. B. F.

Apparently when you first set the surface string of 8-inch casing, which it is assumed had a casing shoe on the bottom, you did not find a tight formation into which the shoe could penetrate. Drilling the 8-inch hole out of the bottom of the casing caused caving of the material around the end of the pipe and the water broke through. The pipe should have been picked up at least one joint and the cement then dumped into the bottom of the hole and the casing lowered into it before the cement set. This would have forced the cement up behind the casing and when you drilled out the cement plug within the casing you should have had a tight job.

Better still if you had called in a cementing company, used the Perkins process, lifted the casing above the bottom of the hole and then run cement into the inside of the pipe and forced it out by pressure applied above a plug inside the casing, the cement slurry would have been forced up behind the pipe and all of the annular space behind the casing filled with cement.

If the 8-inch hole can be bridged securely enough to permit using the Perkins method you probably can still have the cement forced out of the pipe, and up into the hole back of it. If this is done, it is suggested that you try to get cement returns at the surface, thus insuring a complete shutoff of the water sand, wherever it may be, behind the pipe.

Your first job probably failed because there was water in the hole when you placed your cement. This so thinned the slurry that it did not set properly and when the drill jarred the formation in making the 8-inch hole the still fluid cement ran from behind the casing and into the hole.

It requires approximately 22 sacks of neat cement to fill the annular space between the outside of 8⅛-inch 28-pound casing and the 10-inch drilled hole for each 100 feet of hole. You would require 66 sacks of cement for a compiete shutoff. The 8⅛-inch 28-pound casing will require 28 sacks of neat cement for each 100 linear feet to fill it, so you can place 84 sacks of cement in the casing. This gives an excess of 18 sacks so it would not be necessary to fill all of the 300 feet of casing with cement.

If you place 10 per cent more cement within the casing than actually is required to fill the annular space back of the casing for 300 feet, you will require 72 sacks of neat cement. This will fill the inside of the casing about 260 feet above the bottom and give ample space in which to place the top shoe and then pump in mud to force this shoe down and displace the cement in the casing below it. This should permit you to get cement returns at the surface, and if this is done you may be certain that you have a good shutoff of the water.

In using this process it is best to call in a cementing company with its heavy-duty outfit and have it first establish mud returns behind the casing so that you will be certain that no thief sand exists there that will take your cement when it is pumped out of the pipe. If there is a formation that will take mud it is only necessary to continue to pump mud into the casing and up into the annular space behind the casing until mud returns appear at the surface of the well.

As the cement later will displace all excess mud behind the pipe it is safe to assume that the cement is not going into open pores in the formation but is actually doing what you want done, filling the annular space back of casing with cement.

Readers are invited to send questions relating to drilling, producing and transporting operations. These questions will be placed in the hands of persons capable of answering them authoritatively. The names of those writing for information will be considered confidential, initials only being published. This department cannot undertake to answer questions involving patents or intricate formulas or those which properly should be submitted to consulting engineers, geologists or lawyers.

WHY THEY CALLED IT

Willie Cries for War

No. 1 Willie Cries for War was the discovery well in the Ponca City Field, drilled by E. W. Marland, now governor of Oklahoma. The name was that of the Indian who owned the land. Many other Indian names, such as Carrie Sits on the Hill and Phoney Bowlegs, are preserved in old oil leases.

It recalls the Scotchman who was said to have asked the clerk in a telegraph office, "What does a message to Chicago cost?"

"Twenty-five cents for the first 10 words, 2 cents for each additional word and no cost for signatures."

"All right, send my signature."

"What is your name?"

"Well, I may not look it, but I'm an Indian and my name is I Won't Be Home Till Friday."

Sometimes It Is Best to "Sock Her on the Nose" and Sometimes Not

I would like to find out what considerations enter into the selection of the site for a wildcat well on a structure which geologists have found. At the A.P.I. meeting in Amarillo last April Dr. Charles N. Gould, according to your report, referred to the geologist's maximum, "Sock her on the nose," meaning the highest point on the structure. But they don't always choose the highest point. I hear from time to time of wells being intentionally put down somewhere on the side of a structure for the reason, as I understand it, that if oil is found the well will last much longer than if it were on the top. But as we always want wells to have long life, it isn't clear to me why they put some wells on the top and some on the side.—T. D. O.

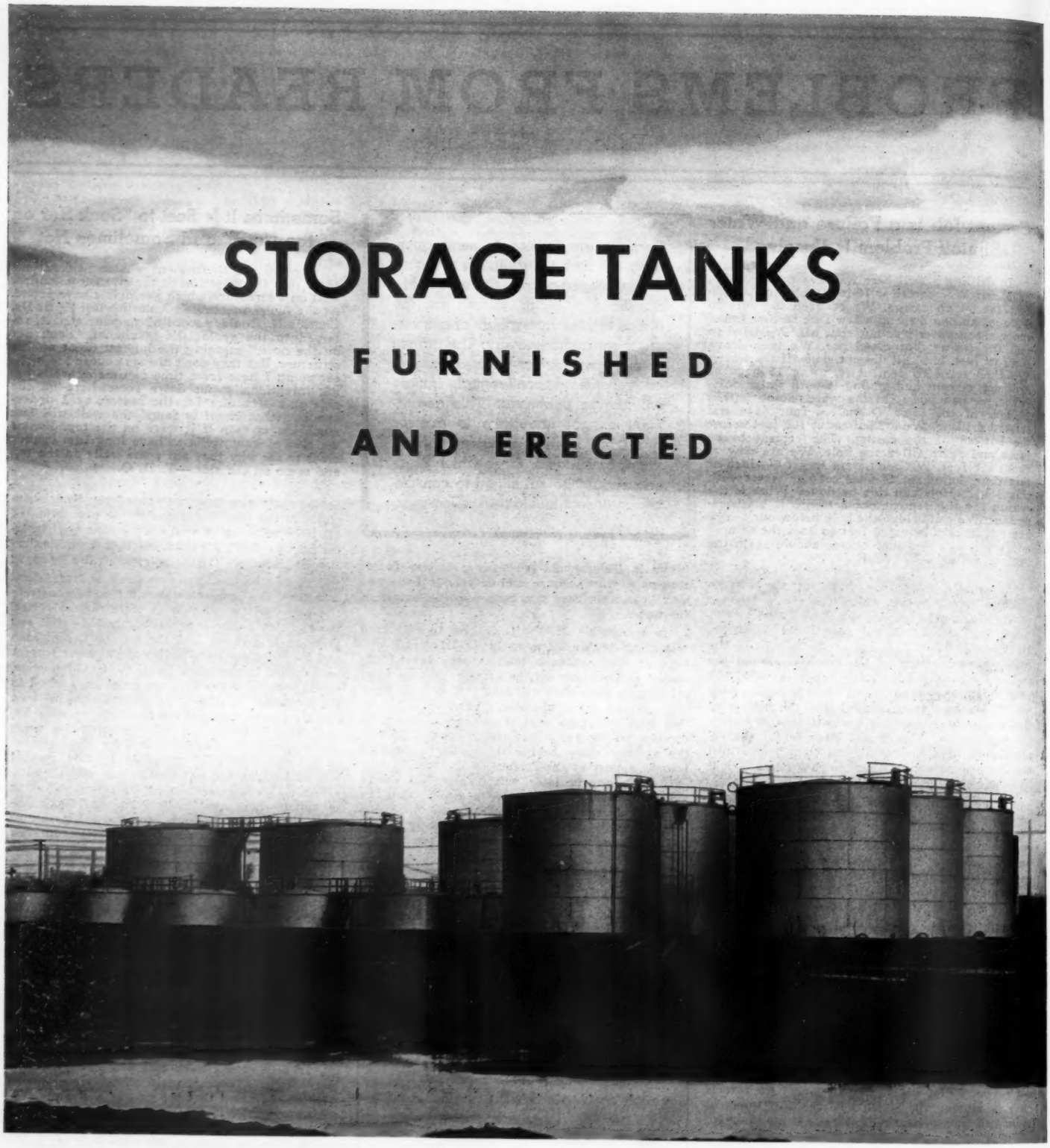
Your question involves one of the basic principles in the function of gas in the production of oil. The selection of well sites is discussed interestingly by L. C. Uren in his Petroleum Production Engineering. On the point you raise he says:

"In locating test wells on dome and anticlinal structure, the prospector should aim to penetrate the petroliferous stratum at its structural crest. Here nature's forces are concentrated — the gas pressure is greatest, and the possibilities of high and long-continued production are at their best. A well drilled in any other location, if unproductive, would still leave the presence or absence of oil in the formation in doubt. An unproductive well on the structural crest settles the issue at once unless there is reason for believing that the sands are lenticular or are influenced by irregular cementation. The only exception to this general rule of locating the test well to intersect the supposed oil-bearing stratum at its structural crest is found where abnormally large gas concentrations under high pressure are expected, owing to unusually favorable structural conditions. In such cases, a well directly on the crest of the structure might produce only high-pressure gas for a considerable period before oil could force its way up from lower levels into the well. A well located slightly down-dip from the structural crest would in such a case produce oil at once.

"It is well to remember in selecting sites for test wells on asymmetric anticlines that the productive limits of the pool will probably extend farther from the axis in the direction of the flat-dipping flank than on the side of the steeply inclined flank. Consequently, if there is doubt concerning the precise location of the axis, preference should be given to the flat-dipping side.

"In determining the location of axes of asymmetric folds at depth from surface measurements, it should be noted that the axis of a stratum several thousand feet deep may be in quite a different position from the axes of the surface strata, though they are parts of the same fold. It is obvious that a careful structural study based on accurate field data is essential before a test well can be properly located to penetrate the oil stratum at its structural crest.

"In locating test wells on monoclinal structure, the wells must be located sufficiently down-dip to penetrate the oil stratum below the zone of surface influence, which may extend for several hundred feet below the outcrop. Oils produced from the upper portion of the stratum, near the outcrop, are likely to be heavy and viscous, and the wells will be small producers because of the difficulty of inducing flow from the sands and because of the absence of gas. Except for this limitation, considerations influencing location of wells on monoclinal structure are identical with those discussed in connection with anticlines and domes."



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QUESTIONS ON TECHNOLOGY

By Charles K. Francis, Ph.D., Technical Editor

Those connected with the refining of crude petroleum, the manufacture of natural gasoline and closely allied industries are invited to submit problems to Dr. C. K. Francis. Questions should give as much detail as possible. Inquiries must be signed but only the given initials will be printed. The source of questions is considered confidential. Questions requiring discussion of patents, the use of intricate formulas, extended computations, or cost estimates cannot be considered in these columns.

Determination of Peroxides in Gasoline and Peroxide Number

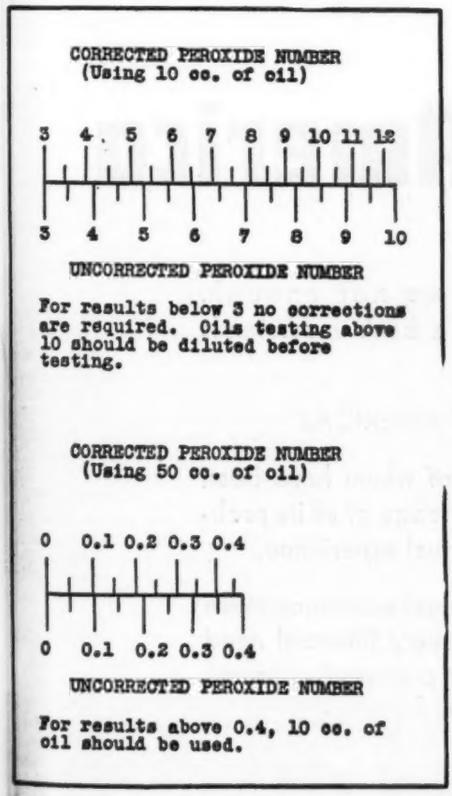
Will you please give information on the determination of peroxides in cracked gasoline, also the meaning of "peroxide number"?—L.S.G.

Voorhees and Eisinger directed attention to the distinction between the two forms of gum found in gasoline: the preformed gum, present in the gasoline when produced, and potential gum, an indication of the tendency of gum to form in the gasoline during storage. Yule and Wilson found in certain investigations that in the base of cracked gasoline the intermediate products are almost entirely peroxides, and concluded that a study of gum resolves itself into a study of the formation and properties of peroxides.

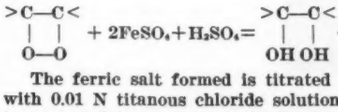
A method was devised for the estimation of these peroxides consisting of shaking a sample of the gasoline with a solution of ferrous sulfate. The results are expressed in "peroxide numbers," which are gram equivalents of active oxygen per 1,000 liters of gasoline.

The details of the method are quoted from the reference:

"Fifty grams ferrous sulfate, 50 grams ammonium thiocynate, and 50 c.c. sulfuric acid are dissolved in 5,000 c.c. water and 5,000 c.c. commercial acetone added. About 10 grams of pure iron wire are placed in the bottle, and the air is displaced with hydrogen. After a few days any ferric salts present as impurities will have been reduced by the iron wire to ferrous salts, and the red color will disappear. The solution is then ready for use. No perceptible oxidation takes place within a quarter of an hour or more on exposure of this solution to air, so that the presence of air during the test does not affect the result.


CORRECTED PEROXIDE NUMBER
(Using 10 cc. of oil)
3 4 5 6 7 8 9 10 11 12
3 4 5 6 7 8 9 10
UNCORRECTED PEROXIDE NUMBER
For results below 3 no corrections are required. Oils testing above 10 should be diluted before testing.
CORRECTED PEROXIDE NUMBER
(Using 50 cc. of oil)
0 0.1 0.2 0.3 0.4
0 0.1 0.2 0.3 0.4
UNCORRECTED PEROXIDE NUMBER
For results above 0.4, 10 cc. of oil should be used.

"Ten c.c. of the gasoline to be tested are shaken vigorously for five minutes with 50 c.c. of the previous solution. If peroxides are present, a red color, due to the formation of ferric thiocyanate, is produced:



The ferric salt formed is titrated immediately with 0.01 N titanous chloride solution. The result is expressed in gram equivalents of active oxygen per 1,000 liters of gasoline. If the peroxide number is higher than 10, the gasoline is suitably diluted with peroxide-free gasoline before testing. For more accurate results, when the peroxide number is below 0.4, 50 c.c. of gasoline may be used."

Since the method may give low results, especially for high gums, a correction factor must be applied. This is based on the assumption that the method is correct for samples showing a peroxide number of 3. A sample high in peroxides is diluted with gasoline until it gives a number of 3 on test. The peroxide number of the sample may then be calculated by proportion. The calculated value is higher than that found by direct determination from the original sample, and the ratio of the two values is the correction factor for gasolines of that particular peroxide number. The figure shows calculated results against corrected numbers.

References: Voorhees and Eisinger, J. Soc. Automotive Eng., 24, 584, 1929, Yule and Wilson, Ind. Eng. Chem., 23, 1254, 1931.

Meat Inspectors Use Petroleum Oil For Denaturing Fats

What is denaturing oil and what are the recognized specifications?—B. O. C.

The Bureau of Animal Industry, United States Department of Agriculture, Meat Inspection Division, enforces a regulation, C. L. No. 1,627, July 30, 1929—Rendered fat derived in whole or in part from condemned product shall be so denatured, either with low grade offal or approved mineral oil, as to destroy it effectively for food purposes. The quantity of oil used shall be sufficient to make not less than one part in each 200 parts of rendered fat.

The mineral oil used for denaturing shall comply with these specifications: Boiling point, not below 401° F.; flash, open cup, 167° F. min.; specific gravity, 0.819 min.; gravity A.P.I., 41.2 max.; taste—recognizable, one part in 1,000 parts of fat.

It has been reported that the oil commonly supplied under the specification has been a dark colored cracked gas oil.

Nature of Color Substances in Petroleum Products Not Known

I notice red to green lubricating oils, gasoline and kerosene are a deep blue by reflected light. Of what are these colors composed?—J. T. D.

The composition of the substances that cause the color of petroleum products is not known. It has been suggested that resins and asphaltic compounds are responsible. Phenols form some colors, pink to red, with unsaturated hydrocarbons. Nitrogen compounds also produce reds. Sulphur may have something to do with it. Complete refining, illustrated in white oils, removes all color-forming bodies. Gurwitsch-Moore, in Petroleum Technology, page 213, give a discussion of the subject, from which the following is abstracted:

"It is often stated that the compounds which occasion the color of petroleum oils are to be looked upon as true dyestuffs. This view was taken by Engler, who endeavored to support it by the facts that Pawlewski had separated a dark brown substance containing 3.76 per cent of sulphur from Galician ozokerite, and that petroleum oils may be partially or wholly decolorized by nascent hydrogen. Gurwitsch is, however, of the opinion that these facts do not in any way prove the presence of true dyestuffs in petroleum oils, if by dyestuffs are understood, as is generally the case, not merely colored substances, but those which have the property of dyeing animal and vegetable fibers. Such substances are not present in petroleum oils.

"Most petroleum crude oils have a more or less strong fluorescence, which is also observable in their distillates. The only products free from fluorescence are the lighter distillates and the paraffin waxes freed from oil. Kerosene, vaseline, solar oil, lubricating oils and the residues of distillation are all fluorescent, whether in the pure state or when dissolved in various organic solvents. The color of the fluorescence varies; for example, it is blue in Russian petroleum products and greenish in those of Pennsylvanian oil. The fluorescence . . . . is only destroyed by repeated drastic treatment with oleum. The fluorescence of petroleum products may be removed by addition of strongly refractive substances such as nitronaphthalene, but reappears after the separation of such 'deblooming' material.

"Brooks and Bacon were able to separate from the acid sludge left after the treatment of a strong fluorescent lubricating oil with oleum a small quantity (about 1 g. per 12 liters of oil) of a crystalline substance, which gave strongly fluorescent solutions with various solvents. According to Brooks and Bacon, this substance is related to chrysene, fluorene and similar polycyclic aromatic compounds. This would explain the persistence of the fluorescence of petroleum oils against treatment with various reagents, as also the fact that fluorescent substances are partly originated during distillation. Thus Brooks and Bacon have found that the distillates obtained from Oklahoma petroleum at atmospheric pressure, and so subjected to a certain extent to decomposition, were much more strongly fluorescent than those produced by distillation in vacuo at a pressure of 5 mm. mercury.

Topped Crude Petroleum Defined

Is there a technical definition for topped crude oil?—L. M. T.

The A.S.T.M. Committee D-2 Definition of Terms gives: "Topped Crude Petroleum—A residual product remaining after the removal, by distillation, or other artificial means, of an appreciable quantity of the more volatile components of crude petroleum. Tops—The unrefined distillate obtained in topping a crude petroleum."

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East and East Central Texas

FOUR WILDCATS PROVE DRY; OIL IN LONG LAKE GAS AREA

By L. E. BREDBERG

DALLAS, Tex., Oct. 14.—Four more wildcats in East Texas were rubbed from the list this week when they proved dry. A Limestone County test, Daugherty and others on the Welch farm, 4 miles west of Groesbeck, was given up at total depth of 3,121 feet. Navarro County duster was drilled by Wiggins and others on the Donoho farm, John Couple Survey, 2 miles south of Corsicana. Total depth was 1,439 feet and elevation 467 feet. Rusk County test, 12 miles southwest of Henderson on the W. R. Poston farm, J. Roth Survey, went to 4,004 feet before abandonment. Elevation is 429 feet. Papadakis and others drilled a dry hole in Upshur County, on the W. H. Allen farm, Lino Gonzales Survey, 8 miles south of Gilmer. Elevation is 427 feet.

Only three locations were staked for wildcats. An Angelina County test is to be drilled by W. L. Le Bland, 1 mile north of his dry hole about 7 miles south of Huntington. Longley and Mason have assembled a block of 3,000 to 3,300 acres on the Falls County line north of Brenham, and will drill a 2,500-foot test. In Henderson County a test is to be drilled by G. S. Waldrip of Athens, who has assembled a 2,100-acre block, 15 miles northwest of Athens. A 1,500-foot test is to be drilled near the old Heiney test on the S. A. Sterrett farm in the I. Marshall Survey.

Another test may be drilled to 4,000 feet south of Winona in Smith County, in the V. H. Vivian Survey.

E. R. Smith and others are to drill a Woodbine sand test on the J. M. Jordan farm, B. Allen Survey, 1 mile south of Newsome and 10 miles east of Winnsboro in Camp County. Two locations have been made and derrick is up on one in Lamar County. L. W. Dennis is to drill both. One on the W. C. Clark farm, G. H. Hall Survey, 2 miles northeast of Reno and 1½ miles northeast of Texas-Gulf Oil Co.'s No. 1 Darnell now drilling. The other is on the Mrs. Effie Lawrence farm, T. B. Roundtree Survey, 2 miles northeast of Blossom and 5 miles east of the Darnell test.

Don F. Clary is to drill on the C. S. Mowery farm, J. Bowerman Survey, 10 miles north of Clarksville in Red River County. A derrick has been erected. A location has been made by Harrison and Abercrombie on the C. A. Rose farm, Mary Smith Survey, 3 miles north of Clarksville.

East of Van Field

The test of Cauble and Thompson on the C. S. Camper tract, John Walling Survey, about 1 mile east of Van Field, Van Zandt County, made a drill stem test in the sub-Clarksville at 2,970-3,110 feet and showed 20 feet of mud, no oil or gas. It topped the Woodbine at 3,190 feet and is shut down for orders at 3,192 feet, probably abandonment.

Long Lake Field

Long Lake Field has come through with another combination oil and gas well, this time on the southeast end where only gas has been produced and where a gasser was completed last week. Tide Water Oil Co. and Texas Seaboard Oil Co.'s No. 1 A. W. Johnson, in the southwest corner of a 425.8-acre tract in the Simon Sanchez Survey, Leon County, about 1 mile northeast of their No. 1 Burkitt, completed over a month ago as a gasser, is gassing at the rate of 50,000,000 feet per day, spraying from 50 to 100 bbls. of oil. Woodbine was logged at 5,221 feet, coring showing the sand section to extend to 5,313 feet. Salt water caused a plugging back job, and casing was perforated at 5,240-48 feet and from 5,263-65 feet. This is the second test completed across the Trinity River from the main field, and the second well in Leon County. Elevation is 230 feet.

The two companies have staked another location on the Leon side of the river, on the Mattie Carter tract, S. Sanchez Survey No. 7, about three-quarters mile southwest of the Burkitt gasser. It is about due east of No. 3 Monnig, Sanchez Survey No. 11, across the river in Anderson County, a gasser.

The Railroad Commission engineer has found, after making a study of the Long Lake Field, that the daily potential of the gas wells is 1,200,000,000 feet. Following this finding the commission has ordered that the efficient drainage area of each gas well shall be considered as a unit of 640 acres, and has ordered that each gas well shall be allowed to produce on a basis 50 per cent of the total field allowable to wells in accordance with each well's proportion of the relative producing ability of all individual wells in the field; and the other 50 per cent of the total field allowable shall be based on the number of acres containing each of these wells, in other words, on a potential and acreage basis. The reasonable market demand for gas from the field for October has been set at 8,500,000 feet per day. Lone Star Gas Co. is taking gas from the wells.

East Texas Field

There were 50 some locations staked in the East Texas Field and 47 tests completed. Two tests overstepped the limits and drilled into water. Sun Oil Co.'s No. 3 Barker, one offset west of production in the Kilgore area, Gregg County, tested salt water, showing no oil or gas and has been plugged at total depth of 3,722 feet. Overtex Oil Co.'s No. 1 Rettig, in Rusk County, was abandoned, total depth 3,682 feet. Six tests were completed as pumpers and three on the swab.

The five wells completed on the west side, in Smith County, cored only 1, 2, 4, 5 and 8 feet of sand respectively before being completed, to prevent drilling into or pulling in salt water. Eleven other tests drilled but a few feet of sand, two taking only 1 foot, one taking 2 feet, one 3 feet, one 4 feet, one 5 feet and the others a little more. These were scattered in Gregg and Rusk Counties. Seventeen wells were completed by major companies.

Casinghead gasoline and butane shipments from the field for September ran 924 cars carrying 7,990,990 gallons, with casinghead gasoline plants being enlarged on a couple of sites to step up their output.

EAST TEXAS COMPLETIONS MISCELLANEOUS

Limestone County

Daugherty and others' No. 1 Welch, dry and abandoned 3,121 feet, 4 miles west of Groesbeck.

Navarro County

Wiggins and others' No. 1 Donoho, dry and abandoned 1,439 feet, elevation 467 feet, 2 miles south of Corsicana.

Rusk County

Edwards and Prior's No. 1 W. R. Poston, dry and abandoned 4,004 feet, elevation 429 feet, 12 miles southwest of Henderson.

Upshur County

Papadakis and others' No. 1 Allen, dry and abandoned 2,782 feet, elevation 427 feet.

Van Zandt County

Humble Oil & Refining Co.'s No. 8 York, total depth 2,918 feet, initial production 434 bbls. in three hours through 15/16-inch choke.

EAST TEXAS FIELD

Gregg County

Arkansas Fuel Oil Co.'s No. 32 Burnside, top pay 3,467 feet, total depth 3,492 feet, initial production 27 bbls. in 15 minutes; No. 4 Christion, top pay 3,572 feet, total depth 3,597 feet, initial production 23 bbls. in 15 minutes. Burke Royalty Co.'s No. 1 T.&P.R.R., top pay 3,572 feet, total depth 3,577 feet, initial production 45 bbls. in 30 minutes; No. 1 T.&P.R.R., top pay 3,572 feet, total depth 3,580 feet, initial production 45 bbls. in 30 minutes. Empire Gas & Fuel Co.'s No. 12 Rogers, top pay 3,565 feet, total depth 3,615 feet, initial production 21 bbls. in 15 minutes. Humble Oil & Refining Co.'s No. 13 Killingsworth, top pay 3,590 feet, total depth 3,646 feet, initial production 65 bbls. per hour. Richer's No. 1 Richey, top pay 3,522 feet, total depth 3,537 feet, initial production 80 bbls. per hour. Shell Petroleum Corp.'s No. 17 Slaton, top pay 3,573 feet, total depth 3,613 feet, initial production 30 bbls. in 30 minutes. United East & West Oil Co.'s No. 7 Walker, top pay 3,573 feet, total depth 3,575 feet, initial production 65 bbls. per hour through 1-inch choke. Halliburton Oil Production Co.'s No. 2 Hagler, top pay 3,623 feet, total depth 3,624 feet, initial production 60 bbls. per hour. Midfield Oil Co.'s No. 3 Samples, top pay 3,715 feet, total depth 3,716 feet, initial production 22 bbls. per hour. Tide Water Oil Co.'s No. 17 King, top pay 3,548 feet, total depth 3,603 feet, initial production 5 bbls. in 10 minutes.

Rusk County

Humble Oil & Refining Co.'s No. 30-B Sexton, top pay 3,649 feet, total depth 3,744 feet, initial production 59 bbls. per hour. Hurtle Oil Co.'s No. 9 Sexton, top pay 3,595 feet, total depth 3,656 feet, initial production 20 bbls. per hour. Royall Petroleum Co.'s No. 1 Gun, total depth 3,573 feet, initial production 20 bbls. in seven hours, pumping. Stanolind and Crosby's No. 11 Powers, top pay 3,698 feet, total depth 3,699 feet, initial production 16 bbls. in 20 minutes. Triple Oil Co.'s No. 2 Montgomery, top pay 3,531 feet, total depth 3,593 feet, initial production 18 bbls. per hour, pumping; No. 3 Montgomery, top pay 3,558 feet, total depth 3,597 feet, initial production 22 bbls. per hour, pumping. Welder's No. 1 Thompson, top pay 3,670 feet, total depth 3,705 feet, initial production 35 bbls. per hour. Adams' No. 5-A Arnold, top pay 3,664 feet, total depth 3,730 feet, initial production 50 bbls. per hour. Barbare and Seips' No. 2 Lambert, top pay 3,540 feet, total depth 3,568 feet, initial production 70 bbls., swabbing. Big Indian Syndicate's No. 3 Deason, top pay 3,685 feet, total depth 3,740 feet, initial production 30 bbls. per hour. Despot's No. 2 Deason, top pay 3,648 feet, total depth 3,715 feet, initial production 50 bbls. in 40 minutes. Everts Drilling Co.'s No. 2 Overton, top pay 3,627 feet, total depth 3,628 feet, initial production 150 bbls. per hour. Flonz and others' No. 1 Hale, top pay 3,522 feet, total depth 3,557 feet, initial production 20 bbls. per hour. Gant and others' No. 5 Edward, top pay 3,562 feet, total depth 3,600 feet, initial production 14 bbls. per hour; No. 6 Edward, top pay 3,581 feet, total depth 3,620 feet, initial production 15 bbls. per hour. Gulf Production Co.'s No. 5 Stone, top pay 3,623 feet, total depth 3,629 feet, initial production 51 bbls. per hour through three-quarters inch choke. Guthrie Oil Co.'s No. 3-B Frederick, top pay 3,517 feet, total depth 3,610 feet, initial production 20 bbls. per hour, swabbing. Humble Oil & Refining Co.'s No. 13 Fuller, top pay 3,684 feet, total depth 3,705 feet,

initial production 60 bbls. per hour. Marathon Oil Co.'s No. 10 Mills, top pay 3,668 feet, total depth 3,748 feet, initial production 48 bbls. per hour. Marr Drilling Co.'s No. 2 Lacy, top pay 3,652 feet, total depth 3,655 feet, initial production 60 bbls. per hour; No. 2 Lee, top pay 3,664 feet, total depth 3,671 feet, initial production 60 bbls. per hour. Olson and Johnson's No. 17 Powers, top pay 3,695 feet, total depth 3,556 feet, initial production 50 bbls. per day, pumping. Royall Petroleum Co.'s No. 2 Moore, top pay 3,510 feet, total depth 3,573 feet, initial production 20 bbls. in 11 hours, pumping. Rusk's No. 1-B Cooper, top pay 3,567 feet, total depth 3,675 feet, initial production 4 bbls. per hour, pumping. Stanolind Oil & Gas Co.'s No. 58 Siler, top pay 3,684 feet, total depth 3,706 feet, initial production 16 bbls. in six hours, swabbing.

Smith County

Delta Drilling Co.'s No. 3 Jackson, top pay 3,815 feet, total depth 3,819 feet, initial production 70 bbls. per hour. Gulf Production Co.'s No. 12 Wiley, top pay 3,686 feet, total depth 3,694 feet, initial production 49 bbls. per hour through three-quarters inch choke. Hinton's No. 15 Mayfield, top pay 3,757 feet, total depth 3,758 feet, initial production 40 bbls. per hour. Illinois Oil Co.'s No. 39 Mayfield, top pay 3,771 feet, total depth 3,773 feet, initial production 130 bbls. in two hours. Sun Oil Co.'s No. 23 Henson, top pay 3,665 feet, total depth 3,670 feet, initial production 50 bbls. per hour.

Upshur County

Humble Oil & Refining Co.'s No. 7 Mattox, top pay 3,687 feet, total depth 3,692 feet, initial production 75 bbls. per hour. Monday Oil Co.'s No. 12 Younce, top pay 3,665 feet, total depth 3,674 feet, initial production 20 bbls. per hour. Slemp's No. 5 Tuttle, top pay 3,703 feet, total depth 3,718 feet, initial production 17 bbls. in 20 minutes. Sun Oil Co.'s No. 1 Salter, top pay 3,834 feet, total depth 3,856 feet, no production gauge.

Preliminary Program For Los Angeles

The preliminary program of the American Petroleum Institute's sixteenth annual meeting in the Biltmore Hotel at Los Angeles, Calif., November 11 to 14, presents among the speakers Governor E. W. Marland, of Oklahoma, who will discuss interstate oil compacts as chairman of the Interstate Oil Compact Commission. Chairman E. O. Thompson, of the Texas Railroad Commission, who will discuss the laws prorating production, and President Charles S. Jones, of the California Oil and Gas Association, whose address will concern conditions in California. They will speak at the general session Wednesday afternoon, November 13.

The industry's progress will be reviewed by President Axtell J. Byles, at the opening general session Tuesday afternoon, November 12. C. E. Arnott, of Socony-Vacuum Oil Co., New York, vice president for marketing, will discuss the proposed new marketing code, and Director Baird H. Markham, of the American Petroleum Industries Committee, will discuss the tax situation.

The opening day will be given over to committee meetings. At noon the board of directors and officers will be guests of honor at a welcoming luncheon by the Los Angeles Chamber of Commerce.

The board of councillors will meet Tuesday morning to nominate candidates for board membership. The election will take place Tuesday afternoon at which time accident-prevention certificates will be presented to companies and departments.

Group sessions for the divisions of production, refining and marketing will start Tuesday evening, with the division of production considering metallurgy and corrosion. Drilling and production practice in California will be taken up Wednesday morning. The division of refining will discuss lubrication, and the division of marketing will consider the proposed marketing code.

A general session, with guest speakers, will occupy Wednesday afternoon, and the annual dinner will be held during the evening.

The division of production group session of Thursday morning will concern research and oil recovery. The division of refining will consider refining problems, and the division of marketing will discuss marketing and related problems. The divisions will elect 20 members of divisional general committees Thursday morning.

Thursday afternoon the division of production will consider drilling practice. The divisions of refining and marketing will have a joint session on automotive fuels.

Friday will be given to field trips.

Handbook of Arc Welding

So rapidly does the art of arc welding develop it has been found desirable to revise a book published in September, 1933, twice, the latest or third edition coming off the press in September, 1935. In the new edition of "Procedure Handbook of Arc Welding—Design and Practice" additional information is given on qualification of welding operators, methods of determining amount of current carried by the electrode, flame cutting, welding of sheet metal, chrome-nickel clad steel, high tensile steels, hard facing, machine design, structural design and new applications of arc welding. This book contains nearly 600 pages, fully illustrated. Copy may be had from Lincoln Electric Co., P. O. Box 683, Cleveland, Ohio, for $1.50.

Timken Wins Suit

H. H. Timken, founder and chairman of the board of Timken Roller Bearing Co., was given a directed verdict in the United States District Court at Cleveland, Ohio, in a suit for $2,000,000 by Charles T. Knapp of Chicago, arising out of operations in the Louisiana Land & Exploration Co. in which Mr. Timken was the largest stockholder. Judge West held that no contract ever existed. Oil was found on the property in 1926.

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A. F. Carpenter, toolpusher for Superior Oil Co. of California, Baton Rouge; E. C. Carter, sales engineer, National Supply Co., Scott, La.

West and North Texas

REPORT ORDOVICIAN LOGGED IN WESTERN CRANE COUNTY

By
L. E. BREDBERG

FORT WORTH, Tex., Oct. 14.—Of prime importance to operators in West Texas this week was the report of logging the Ordovician at over 5,000 feet higher, some reporting it 5,600 feet higher, in a western Crane County deep test than it was picked up in Gulf Production Co.'s No. 103 McElroy across the county and just over the line in Upton County.

Gulf Production Co., which drilled No. 103 McElroy to the Ordovician and to 12,786 feet, is now drilling an Ordovician test on the Waddell ranch in Section 4, Block B-27, P.S.L. Survey, near the western Crane County line and about 25 miles west of the McElroy deep test. The Waddell test has been surveyed with Schlumberger instrument below 2,400 feet, was tested from 5,820-6,075 feet last week, showing no oil or gas, but was reported showing some saturation around 6,075 feet. No information is being given out and there is no certainty as to the Ordovician having been logged, although there were several sections missing which were picked up in the deep test on the McElroy ranch.

These reports started companies, especially Humble Oil & Refining Co., purchasing acreage, Gulf Production Co. and Humble taking all the unleased acreage making up the Cowden ranch in the southeastern part of Crane County. Other companies and operators have been purchasing in western Crane County, Upton and eastern Pecos County, on the basis of an Ordovician play since the report of the high condition of this deep test which is now preparing to drill ahead after reaming 9⅞-inch hole to total depth of 6,159 feet in Dolomite.

Yoakum Prospect

C. J. (Red) Davidson and Honolulu Oil Co. are now running casing on No. 1 Bennett, in Section 678, John H. Gibson Survey, southeastern Yoakum County. Cement will have to set for several days and plug will probably not be drilled for a week. This is the most important wildcat at present due to picking up 800 feet of oil in the hole and shutting down at 5,000 feet to set pipe. It is an extreme wildcat and has opened a renewed buying campaign in Yoakum and adjacent counties. Companies and independents have held a large acreage around this test and in the county for some time, consequently there is little to be purchased, operators stepping out to the northern line of the county in their new purchases. The test will be closely watched when plug is drilled, but it may not show for a commercial producer then and may be drilled deeper and even given a shot or acidized before it is completed. Elevation is 3,557 feet.

John I. Moore, Loffland Brothers and others' No. 1 McDowell, Ordovician test in Section 22, Block 34, Township 2s, T.&P. Survey, Glasscock County, shut down for two months at a total depth of 10,115 feet, blew out putting 175 bbls. of high gravity in the tanks and losing an estimated 25 bbls. on the ground. Gas pressure, building up during the shut down, was no doubt responsible for the well heading. It was formerly treated with 6,000 gallons of acid, but did not show any commercial results. What is to be done with the well is undecided, but it may be carried deeper or given a shot. It has yielded more oil than any deep test outside the Big Lake Field, Reagan County, about 50 miles southwest.

John M. Cooper and others' No. 1 Bert Page, in Section 40, Block L, G.H.&S.A. Survey, has been making an estimated 6,000,000 feet of gas after acidizing with 3,000 gallons. Total depth was 6,257 feet but it was plugged back to 5,555 feet to acidize and test upper showings in the Pennsylvanian lime section between 5,370 and 5,550 feet. Another 10,000 gallons of acid is expected to be run in an effort to increase the gas and the oil which showed a small spray with the gas.

Reeves Wildcat

Slack and White's No. 1 Reeves, in the extreme western part of Reeves County, Section 20, Block 56, PSL Survey, which topped Delaware lime at 3,126 feet and the sand at 3,164 feet, logging an oil showing, is shut down at 3,205 feet to shoot the total section of 77 feet with 400 quarts. Previous tests in this county have logged good showings of oil, one or two producing a small quantity oil, which led to the belief some day a Delaware Pool will be opened. Companies and operators hold considerable acreage and are buying more leases in this and the adjacent county southeast, Pecos.

Lueders Pool

The Lueders Pool in Jones County is due for two wells this week, Bridwell and Fikes completing No. 2 Jennings, south offset to the Farris and Fikes discovery on the Jennings farm, and Ungren and Frazier's No. 1 Jennings, a north offset to the initial well. The latter started producing 25 bbls. per hour through tubing, with the hole bottomed at 2,047 feet and the former test topped pay at 2,051 feet, was shut down at 2,057 feet and made several flows, one 16 bbls. in 45 minutes. These wells are producing from the King sand, and several other tests are drilling or preparing to spud near the discovery about 3 miles west of Lueders. A refinery there is taking oil through a small line, but will not suffice to handle all the oil from the new pool.

Proposed Tests

A proposed test for southwestern Gaines County may be drilled in Section 19, Block 11-A, PSL Survey, by Cook and Scheig of Big Springs and another will be drilled in Section 77, Block X, southeastern Crane County, on the Cowden Ranch, but about 3 or 4 miles west of the Hughes Pool north of McCamey, if plans materialize.

There were only 16 locations staked in West Texas, the only wildcat being that of T. K. Simmons on the Beatty farm, Section 4, Orphan Asylum Lands, Jones County. There were 20 completions, one a discovery in Reagan County. Dobbs Oil Co.'s No. 1 Friend, about 5 miles south of Big Lake. It was discovered several months ago, but the company has been working on it since to increase its production. The initial production was only 10 bbls. per day with some water. It was drilled to 2,464 feet, but was plugged back to 2,450 feet in an effort to shut off bottom hole water, apparently unsuccessful. Pay was topped at 2,323 feet. The company has staked a location to south of the discovery and Sun Oil Co. is drilling a test about 2 miles north, Section 1, G. C. & S. F. Survey. The Friend discovery is in Section 3, William Allen Survey. Plymouth Oil Co. abandoned a wildcat 4 miles southeast of Centralia in Reagan County, in Section 1231, G.C.&S.F. Survey, bottomed at 3,373 feet.

Possible Failure in Ector

Continental Oil Co.'s No. 1 Wight, in Section 21, Block 43, Township 1s, T. & P. Survey, about 1½ miles southwest of Eppenauer Drilling Co.'s southwest extension of the Cowden Field, Ector County, appears a failure while drilling at 4,370 feet in lime. The Eppenauer extension was bottomed at 4,260 feet. If the Continental test fails it will mark the southwest limits of the Cowden Field.

Andrews County Wildcat

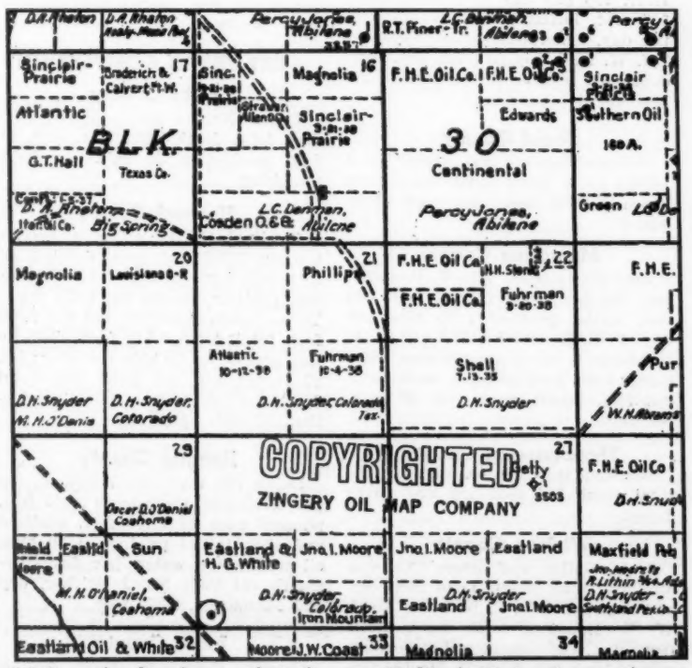
L. G. Stogner and others' No. 1 Cora George, in Section 25, Block A-22, PSL Survey, near the north line of Andrews County and about 7 miles northwest of the Means Pool, which created interest when it logged good showings of oil and gas at intervals between 4,330 and 4,585 feet, is drilling at 4,775 feet with lessened prospects. It has been correlating about normal with the wells in the Means Pool, around 4,500 feet.

Subterranean River

The Ordovician test started by Floyd C. Dodson and others on land in Section 66, Block 10, G. H. & S. A. Survey, Brewster County, held by Texas American Syndicate, has been given up at 1,715 feet as a result of striking an underground stream and the derrick is being skidded.

Winkler County Prospect

Sid Richardson's No. 1 Jenkins, in the southeast quarter of Section 13, Block 77, PSL Survey, about 2 miles north of his discovery, also a joint



Well on the Snyder ranch in Section 28, Block 30, 3 miles southwest extension from the Denman Pool, in eastern Howard County

discovery of the Keystone Pool, Winkler County, struck an estimated 20,000,000 feet of gas this week at 3,075 feet, making it appear as extending the Keystone Pool northwest. It is drilling at 3,310 feet with the hole loaded.

Proposed Wildcat

A 4,500 foot test has been proposed for Section 44, Block 54, T. & P. Survey of Section 92, Block 33, H.&T.C. Survey, in the southwestern part of Loving County, several miles west of the Wheat Pool.

Ranger and Wichita Falls

The Wichita Falls district had 55 locations staked this week. There were 46 tests completed, all producers except 17. Cowden and Fagadau's and others' No. 1 Dallas Joint Stock Land Bank, in the L. Hallmark Survey, southwest of Foard City, was abandoned at a total depth of 4,000½ feet. It was trying for the pay found in Texas Co.'s high gravity wells on the Les K. Johnson ranch to the west near the Cottle County line which produced from around 3,600 feet.

Baylor County Pool

The Portwood Pool in Baylor County came through with another large producer this week. Consolidated Oil Co.'s No. 8-R Portwood made an initial flow at the rate of 3,300 bbls. per day on a four hour test at total depth of 1,361 feet. Pay was topped at 1,334 feet. There were four other producers completed in the pool and one abandoned.

Production in the Wichita Falls district averaged better than 63,700 bbls. per day during the week. Another Canyon lime well was added to the Chalk Hill Pool in eastern Archer County when Deep Oil Development Co. brought in No. 5 L. F. Wilson in Block 77, A.T.N.C.L. Survey, flowing at the rate of 1,400 bbls. per day until closed in. Pay was topped at 2,199 feet, and hole was bottomed at 2,218 feet. It is in the east extension.

Panhandle

The Panhandle had 19 locations and 12 completions, 10 oil wells.

Interesting Wildcat

Phillips Petroleum Co. plans to drill a 6,000 foot wildcat 18 miles west of Memphis in Hall County, following seismograph survey of an area in which the company has a 30,000-acre block. Loffland Brothers of Tulsa have contract to carry the test to 6,000 feet, but it may be drilled deeper. It is in Section 4, Block 4, Block H, J. H. Stephens Survey, on the A. C. Hughes Estate. A heavy rotary is being moved from Oklahoma City Field.

Daily average production in the district was slightly above 51,200 bbls. for the week, a decline of 7,250 bbls. under last week.

WICHITA FALLS (North Texas) COMPLETIONS

Archer County

Burns and Long's No. 6 York estate, top pay 1,308 feet, total depth 1,315 feet, initial production 20 bbls. of oil and 15 bbls. of water per day. Fain-McGaha Oil Corp.'s No. 1 L. H. Farmer, total depth 1,540 feet, dry and abandoned. Hamer and Scholl's No. 3 Archer County, total depth 960 feet, dry and abandoned. Harry Hines and others' No. 1-A Ward Brothers, total depth 950 feet, dry and abandoned. C. B. Long's No. 1 J. H. Turbeville, top pay 1,514 feet, total depth 1,521 feet, initial production 35 bbls. of oil and 4 bbls. of water daily. Palmer and Chenault's No. 1 J. W. Campbell, top pay 563 feet, total depth 574 feet, initial production 5 bbls. per day. Perkins and Cullum's No. 190 Falls, top pay 1,160 feet, total depth 1,168 feet, initial production 35 bbls. per day.

Baylor County

Consolidated Oil Co.'s No. 8-R Portwood, top pay 1,334 feet, total depth 1,361 feet, initial production flowed at rate of 3,300 bbls. per day on a four-hour test. Petroleum Producers' No. 11-H Portwood, top pay 1,337 feet, total depth 1,367 feet, initial production 250 bbls. per day; No. 12-H W. H. Portwood, top pay 1,363 feet, total depth 1,375 feet, initial production 300 bbls. per day; No. 13-H Portwood, total depth 1,392 feet, dry and abandoned. Ray and Staniforth's No. 21-C Portwood, top pay 1,335 feet, total depth 1,354 feet, initial production 800 bbls. per day swabbing and flowing; No. 22-C Portwood, top pay 1,328 feet, total depth 1,353 feet, initial production 850 bbls. per day flowing.

Cooke County

Bridwell Oil Co.'s No. 1 J. R. Parkey, total depth 1,588 feet, dry and abandoned. E. W. Eaton and others' No. 1 C. J. Wimmer, total depth 1,421 feet, dry and abandoned. Hudspeth-Harvey and Bass' No. 5 Trubenbach, top pay 857 feet, total depth 873 feet, initial production 75 bbls. per day. H. D. Mayfield and others' No. 1 J. T. Donald, total depth 2,820 feet, dry and abandoned. Merrick Drilling Co.'s No. 5 Hess, top pay 874 feet, total depth 899 feet, plugged back to 888 feet, initial production 40 bbls. of oil and 10 bbls. of water per day; No. 11-B A. Knabe, top pay 801 feet, total depth 874 feet, plugged back to 838 feet, initial production 5 bbls. per day; No. 5 G. Stelzer, top pay 1,190 feet, total depth 1,229 feet, plugged back to 1,228 feet, initial production 5 bbls. per day. A. D. Robinson's No. 1-A J. Danglemayer, total depth 900 feet, dry and abandoned; No. 1 Fred Herr, top pay 819 feet, total depth 824 feet, initial production 15 bbls. per day. Schermerhorn Oil Co.'s No. 1 J. W. Hess, top pay 722 feet, total depth 761 feet, initial production 200 bbls. per day pumping.

Foard County

Cowden-Fagadau and others' No. 1 Dallas Joint Stock Land Bank, total depth 4,000½ feet, dry and abandoned.

Montague County

Arco Oil Co.'s No. 7 R. W. Cunningham, top pay 946 feet, total depth 956 feet, initial production 35 bbls. per day. F. H. E. Oil Corp.'s No. 2 D. A. Lauderback, top pay 1,236 feet, total depth 1,255 feet, plugged back to 1,243 feet, initial production 20 bbls. per day.

Throckmorton County

Bearman Oil Co.'s No. 6 Lee Tuton, total depth 794 feet, dry and abandoned.

Wichita County

J. K. Bailey and others' No. 4-A McClure, total depth 1,040 feet, dry and abandoned. H. C. Barrow's No. 5 W. B. Honaker, total depth 1,060 feet, dry and abandoned. Horwitz and Oldom's No. 5 D. E. Hooks, top pay 1,280 feet, total depth 1,289½ feet, initial production 30 bbls. per day. W. B. Omohundro and others' No. 8 D. E. Hooks, top pay 1,200 feet, total depth 1,215 feet, initial production 35 bbls. per day.

Young County

Alexander-Page and others' No. 1 W. B. Howard, top pay 911 feet, total depth 916 feet, initial production 7 bbls. per day. Paul Atchley and others' No. 1 F. G. Swain, total depth 1,058 feet, dry and abandoned. C. E. Beavers and others' No. 1 Barnett and Gibbs, top pay 649 feet, total depth 654 feet, initial production 35 bbls. per day; No. 2 Barnett and Gibbs, total depth 705 feet, dry and abandoned. Chambers and others' No. 1 S. M. J. Benson estate, total depth 1,018 feet, dry and abandoned. H. C. Donohoe and others' No. 1 Bush and others, total depth 902 feet, dry and abandoned. Clara Mae Douglas' No. 9 Finch, top pay 645 feet, total depth 653 feet, initial production 10 bbls. per day. Fresno Oil Co.'s No. 8 J. M. Kirkland, top pay 684 feet, total depth 695½ feet, initial production 127 bbls. per day.

Hammond Oil Co.'s No. 1 J. G. Elliott, total depth 4,538 feet, dry and abandoned. Charles Knox' No. 2-A Mrs. E. Taylor, top pay 2,720 feet, total depth 2,746 feet, initial production 45 bbls. per day. L. A. Long's No. 1 R. A. Kutch (old well deepened—formerly produced from oil sand 1,705-07 feet), new total depth 4,215 feet, dry and abandoned. Nash and Windfohr's No. 2 B. F. Manley (old well deepened—old total depth 2,503 feet), new total depth 2,910 feet, top pay 2,888 feet, initial production 115 bbls. per day pinched in. Shappell Oil Co.'s No. 1 L. L. Anderson, total depth 555 feet, dry and abandoned. Steele and Scott's No. 1 G. P. Stewart, top pay 848 feet, total depth 932 feet, plugged back to 860 feet, initial production 3 bbls. daily. Texas Co.'s No. 11-B Jeffery estate, top pay 699 feet, total depth 710 feet, initial production 130 bbls. per day; No. 2 E. C. Keith, top pay 726 feet, total depth 729 feet, initial production 32 bbls. per day. R. J. Watson and others' No. 2 J. F. Larrimore, top pay 565 feet, total depth 570 feet, initial production 35 bbls. per day.

WEST TEXAS COMPLETIONS

Ector County

Peters' No. 1 Connell, top pay 3,425 feet, total depth 3,591 feet, shot, initial production 30 bbls. per hour, swabbing.

Howard County

Cardinal Oil Co.'s No. 4 Settles, top pay 2,205 feet, total depth 2,235 feet, initial production 80 bbls., pumping. Sinclair Prairie Oil Co.'s No. 1 Texas Lands Mortgage, top pay 2,595 feet, total depth 2,810 feet, shot, initial production 33 bbls. per hour; No. 22 Dodge, top pay 2,585 feet, total depth 2,832 feet, shot, initial production 235 bbls., pumping.

Reagan County

Dobbs Oil Co.'s No. 1 Friend, top pay 2,323 feet, total depth 2,464 feet, plugged back to 2,450 feet, acidized and shot, initial production 10 bbls. oil with some water, per day. Plymouth Oil Co.'s No. 1 Belcher, dry and abandoned, 3,373 feet.

Jones County

Condor Petroleum Co.'s No. 6 Sayles, top pay 1,905 feet, total depth 1,920 feet, initial production 243 bbls., pumping; No. 5 Sayles, top pay 1,885 feet, total depth 1,895 feet, initial production 232 bbls., pumping. Ungren and Frazier's No. 2 Dorsey, top pay 2,053, total depth 2,086 feet, initial production 35 bbls., pumping.

Runnels County

Mann and others' No. 2 Wade, top pay 2,531, total depth 2,557 feet; initial production 7 bbls. pumping.

Upton County

Gulf Production Co.'s No. 2 Sherk, total depth 2,390 feet, initial production 270 bbls., pumping. Eppenauer Drilling Co.'s No. 2 Lane, top pay 2,002 feet, total depth 2,066 feet, acidized, initial production 621 bbls. Ellis and others' No. 2 Robbins, top pay 2,020 feet, total depth 2,045 feet, acidized, initial production 734 bbls. Gulf Production Co.'s No. 118 McElroy, top pay 2,810 feet, total depth 2,854 feet, shot, initial production 404 bbls.

Ward County

Tex-Mex Petroleum Corp's. No. 4-B Johnson, top pay 2,443 feet, total depth 2,587 feet, shot, initial production 32 bbls. Thompson's No. 4-B Johnson, top pay 2,315 feet, total depth 2,530 feet, shot, initial production 1,251 bbls. Eppenauer Drilling Co.'s No. 2-A Combs, top pay 2,400, total depth 2,675 feet, plugged back to 2,665 feet, initial production 249 bbls. Black and Sons' No. 2 York, top pay 2,340 feet, total depth 2,530 feet, initial production 486 bbls.

Winkler County

Emperor Oil Co.'s No. 1 Halley, top pay 2,824 feet, total depth 2,886 feet, initial production 75 bbls. Maxwell and others' No. 4 Daugherty, top pay 2,780 feet, total depth 2,980 feet, shot, initial production 577 bbls. Gulf Production Co.'s No. 5 Keystone, top pay 3,262 feet, total depth 3,784 feet, plugged back to 3,650 feet, initial production 1,213 bbls. oil and 142 bbls. water per day.

PANHANDLE COMPLETIONS

Carson County

Gulf Production Co.'s No. 5 Black, top pay 3,009 feet, total depth 3,079 feet, shot, initial production 438 bbls., pumping. Magnolia Petroleum Co.'s No. 12 fee, top pay 2,972 feet, total depth 3,050 feet, initial production 186 bbls., pumping.

Gray County

Bradshaw Oil & Gas Co.'s No. 2 Harrah, top pay 3,165 feet, total depth 3,285 feet, shot, initial production 305 bbls., pumping. Dixon Creek Oil Co.'s No. 9 Horner, top pay 3,200 feet, total depth 3,265 feet, shot, initial production 801 bbls., pumping. Dyck Oil Co.'s No. 4 Noel, top pay 3,218 feet, total depth 3,304 feet, initial production 142 bbls., pumping. King Royalty Co.'s No. 4 Brown, total depth 3,265 feet, shot, initial production 311 bbls., pumping. Moran's No. 1 Holmes, top pay 3,110 feet, total depth 3,124 feet, initial production 503 bbls., pumping. Clark and Smith and others' No. 3-B Short, top pay 3,010 feet, total depth 3,057 feet, shot, initial production 600 bbls., pumping.

Hutchinson County

International Petroleum Corp.'s No. 22 Lewis-Badger, top pay 2,945 feet, total depth 3,037 feet, shot, initial production 438 bbls., pumping. Smith and McDaniel's No. 5 Pitcher, top pay 3,103 feet, total depth 3,175 feet, shot, initial production 283 bbls., pumping.

Rocky Mountain Area

COLORADO WILDCAT SWABS 100 BARRELS IN FIVE HOURS

By
T. R. INGRAM

DENVER, Colo., Oct. 14.—The Continental Oil Co.'s No. 47 extended the proven area of the Rattlesnake Pool when it came in for 236 bbls. in the first sand at 741 feet.

Colorado had an important week in which the Hughes Estate's wildcat in Archuleta County swabbed around 100 bbls. in five hours; the Continental Oil Co.'s No. 3 Hoye succeeded in penetrating the carbon dioxide gas-oil horizon on the South McCallum Dome and found saturation in a lower sand; and the Mountain Fuel Supply Co.'s No. 1 Kuykendall, an old gas well on the Hiawatha Dome, drilled 400 feet deeper and found oil, bailing 147 bbls. of 31 gravity crude.

Union Oil Co. of California has rig up for its Sundance test on the Dutton Creek structure in Carbon County, Wyoming, its first well in this district since 1929. One well was abandoned in Crook County. Two new locations were made and one abandoned in Lance Creek.

The 7,000-foot deep test of the Montana-Dakota Utilities Co. in Fallon County, Montana, had water in the Dakota at 3,740 feet. Two average wells were completed in Cut Bank and one in the Kevin-Sunburst Field. The Independent Natural Gas Co. completed a 6,250,000-foot gasser in Hill County.

NORTHWEST NEW MEXICO

The allowable outlet for the State of New Mexico was set at 60,000 bbls. a day for the first half of October by the State Conservation Commission, the same as for the first half of September. The only change outside of Lea County was an increase in the allowable for the Artesia area from 2,000 to 2,416 bbls. daily.

Allocations for Lea County marginal units for the first half of October are as follows:

	Units	Allocation
Cooper	8	483
Eunice	4	230
Hobbs	1	7
Jal	21	1,235
Lea	2	185
North Lea	2	119
Total	38	2,259

Top allowance for nonmarginal wells was placed at 126 bbls. per well per day.

Allocations by pools, including marginal and nonmarginal wells, is as follows:

	Units	Allocation
Cooper	78	9,303
Eunice	90	11,192
Jal	47	4,511
Lea	10	1,193
North Lea	2	119
Hobbs	229	28,593
Monument	13	1,638
Total	431	56,549

Pipe line runs from Lea County pools in September were as follows:

Hobbs	$66,733
Lea	36,118
North Lea	1,866
Monument	25,790
Cooper	270,262
Jal	112,772
Eunice	314,965
Total	1,628,507

Bernalillo County

Norine Realty Co., Inc.'s No. 1 Callegan grant, S NW NW Sec. 19-11n-4e.
Drlg. 600 ft.

McKinley County

Co-operative Prod. & Ref. Co.'s No. 1 fee, SW cor. Sec. 21-20n-9w.
Drlg. 470 ft. in shale.
Lark Drlg. Co.'s No. 2 Santa Fe, N½ NE Sec. 29-20n-9w.
Rigging up (first report).
S. Dysart et al's No. 1 Bouton, E NW NE Sec. 14-4n-10w.
O.W.D.D.; resumed at 1,365 ft.

Quay County

Quay County Dev. Co.'s No. 1 Wallace, C SE SW Sec. 19-9n-33e.
S.D. 752 ft. for wire line; 10-in. at 408 ft.; 8¼-in. at 553 ft.

Rio Arriba County

El Vado Structure Properties Co., Ltd.'s No. 1-A Tierra Amarilla grant, NE Sec. 26-3s-1e (unsurveyed).
Rigging.

Sandoval County

Continental Oil Co.'s No. 1 L-Bar Cattle Co., CEL SE NE Sec. 2-13n-4w.
Reconditioning hole at 4,396 ft. after fishing out drill pipe.

San Juan County

The Continental Oil Co. has a good completion in its No. 47, SE NW NW Section 2-29-19, on the Rattlesnake Dome. It was intended to carry this well down to the second Dakota, but on account of its size it was completed in the first Dakota at a total depth of 741 feet and made 236 bbls. first 24 hours. It is on the west side of the pool and three-fourths of a mile north of No. 34, C SW SW Section 2, which was completed in 1934 for 40 bbls., and one-fourth of a mile west of the nearest producer. These wells and No. 41, drilled in the NE cor. of Section 35-30-19 several months ago and completed as a producer, prove up several hundred acres. The oil from the upper sands in this pool is of unusually high gravity, some samples testing as high as 76 degrees A.P.I., but quickly weathers to 60 to 63 gravity. The crude is piped to Farmington where the company operates a refinery. The handling of the high gravity oil developed some difficult problems in transportation at first, which the company's engineers solved. Measuring the oil tanks often gives varying results and a measuring stick will come out of the tank showing practically no results unless it is chalked before being used. The stick when thus treated is heated before being used so it may cool to the temperature of the oil.

Aztec Coop. Oil Co.'s No. 1 Greer, SE SE SW Sec. 10-30n-11w.
J. F. Cross et al's No. 1 Wilson, SW SW SE Sec. 17-30-11w.
S.D. 810 ft.
Cross & Poole's No. 1 Aztec, Sec. 1-30-11w.
Making water shutoff at 740 ft.
Kutz Canon O. & G. Co.'s No. 1 Day, SW SW SW Sec. 20-28-10.
T.D. 4,400 ft.; fishing for tools.
R. C. Oswell's No. 4 Government, SW SW NE Sec. 34-30-11w.
S.D. 1,790 ft.
R. C. Oswell's No. 6 Government, SE NE Sec. 33-30-11w.
Spudded and S.D.
Phillips & Spence's No. 2 Martin, NW NE SW Sec. 34-30n-11w.
Comp. for 238,000 ft. gas in sands at 937-49 ft. and 1,013-19 ft.
Reserve Oil Co.'s No. 6 Shaffer, SE NE SE Sec. 36-22n-14w.
Location.
San Juan Pet. Co.'s No. 1 Lemley, NE SE SE Sec. 32-30-11w.
S.D. 1,314 ft.
Nick Spatter's No. 1 fee, C NE SW Sec. 32-31-11w.
S.D. 1,745 ft. for pipe.
W. R. Webb's No. 1 fee, CEL NE NW Sec. 6-30-11w.
P.B. from 1,500 ft. to 1,350 ft.; set pipe and preparing to test.

San Miguel County

Cabra Springs O. & G. Co.'s No. 1 Thompson, SW NE NE Sec. 22-12n-22e.
S.D. 4,030 ft.
Cabra Springs O. & G. Co.'s No. 2 West Pino Mesa, SW SW NW Sec. 31-12-22.
S.D. 726 ft.
Pioneer Oil Co.'s No. 2 Montezuma, CSL SE SW Sec. 14-15n-16.
Drlg. 200 ft.
Starr-Kennedy Oil Co.'s No. 3 Adams, NE NE SE Sec. 25-17-16.
Standing at 5,090 ft. after completing rig; to resume following fire.
Holmberg Interest's No. 1 Cantwell, NW NW NW Sec. 5-10n-9e.
S.D. 810 ft. (corrected).
Kelsey Clients Dev. Est.'s No. 2 State, C NW Sec. 22-10n-10e.
S.D. 1,450 ft.

Torrance County

Estancia Valley Carbon Dioxide Dev. Co.'s No. 1 Kellogg, NW NE Sec. 12-7n-7e.
Drlg. 570 ft. (first report).
48 Pet. Co.'s No. 1 Greenfield, C NW SW Sec. 17-9-8e.
Drlg. 800 ft. in limes and shales; carrying 8¼-in. at 750 ft.
Bruce Fraier's No. 1 Fraier, SE Sec. 12-2n-31.
Drlg. 1,210 ft. in granite wash water at 882-86 ft.

Union County

Sierra Grande Oil Corp.'s No. 2 Rogers, C NE SW Sec. 4-29-29.
T.D. 2,715 ft. in granite.

Valencia County

Pres-Sel Dev. Co.'s No. 1 Morris, SE NE Sec. 30-12-10w.
Dry and abd. at 625 ft.
Ringle Dev. Co.'s No. 2 Tome grant, C NE SE Sec. 20-6n-3e.
Rigged and S.D.
Ringle Dev. Co.'s No. 1 Tome grant, C SE SE Sec. 36-6n-3e.
S.D. 400 ft.
Western Natural Resources Corp., Inc.'s No. 2 San Clemente, SE SE NW Sec. 5-6n-1e.
T.D. 6,001 ft.

COLORADO

Adams County

Riddle Pet. Co.'s No. 1 Baxter, C SW Sec. 2-3s-66w.
Standing partly rigged and drlg., water well; drlg. w.w. at 1,260 ft.; est. 30 ft. off the objective Milliken sand.

Archuleta County

The William E. Hughes Estate's No. 2 fee, on unsurveyed land approximately in the SW Section 24-33n-2e, Price district, which is showing for a commercial producer, is unofficially reported to have swabbed for five hours and to have filled a 250-bbl. tank 44 inches in that time, or around 110 bbls. Corrected total depth at last reports was 1,090 feet, 5 feet in the first Dakota sand. The 6⅝-inch was cemented on top of the sand and the latest report the operator has was that it was planned to drill the plug on October 8. Measured location places the well 3,015 feet to the east and north of the Oil City Petroleum Co.'s No. 1-A Garnett.

Wm. E. Hughes Est.'s No. 2 fee (unsurveyed), approx. SW Sec. 24-33n-2e.
T.D. 1,090 ft.; preparing to test.
Oil City Pet. Co.'s No. 1-A Garnett, NW NE NW Sec. 25-33n-2e.
T.D. 1,520 ft.; U.R. 6¾-in. to bottom; shale 1,497-1,510 ft.; back into sand at 1,510 ft. with show of oil, no water.
Navajo Oil Co.'s No. 1 Crowley, SW SW NE Sec. 11-32-1e.
T.D. 1,130 ft.; pulled 5 3/16-in. and S.R.

Baca County

J. H. Everett et al's No. 1, 330 ft. NW cor. Sec. 24-32-48.
Spudded water well.

Boulder County

Leslie R. Steele et al's No. 1 Maxwell, SW NE NW Sec. 24-1n-71.
Drlg. 2,009 ft. in black shale.

Fremont County

Waterville Oil Co.'s No. 1 State, SE SE NW Sec. 16-18s-69w.
Landed 5 3/16-in. at 2,780 ft.; shut off show of oil and salt water and S.D. at 2,790 ft.

Grand County

Interstate O. & G. Co.'s No. 1 Hinman, NE NE NW Sec. 11-2n-81.
S.D. 2,997 ft.

Huerfano County

S. W. Pressey's No. 1 Ojo, SW NE Sec. 10-28-69.
Collins & Quinn's No. 1, C W½ E½ Sec. 4-28s-68w.
S.D. 4,115 ft.

Jackson County

The Continental Oil Co.'s No. 3 Hoye, an important test on the South McCallum Dome, this week succeeded in penetrating the gas sand which yields carbon dioxide gas mixed with crude oil at a temperature of 110° below zero F. in the discovery well, and encountered saturation in a lower horizon. It topped the Dakota at 4,962 feet and cores showed saturation at 4,978 feet, at which depth coring was still in progress at last reports. The identification of this horizon as the Dakota apparently settles the question as to whether the gas sand was the Muddy or the Frontier. No attempt was made to test the gas sand on account of the hazard and it is planned to core on through the Dakota to the bottom of the Lakota and then run the 9⅝-inch below the gas. It is believed that the Muddy was topped at 4,892 feet. The McCallum structure consists of two domes known as North McCallum and South McCallum. The discovery well came in below 5,110 feet in December, 1926, on the north dome. Subsequently a test was drilled on the south dome and its performance was similar to that of the discovery. Once the gas in these wells was allowed to expand and come to the surface, little additional progress could be made. In No. 3 Hoye the hole has been loaded with heavy mud and circulation maintained at all times. The occurrence of carbon dioxide in large volumes in association with petroleum on each of these two structures provides an unusual problem in oil production. It was believed that by getting through this horizon that oil would be encountered in lower formations free from the gas. The present test is being drilled after extensive experimental work relative to

the properties of the gas. The anticlinal structure is approximately 12 miles long and 2 miles wide.

Colorado Oil Ref. Co.'s No. 1 North Park Coal, NW NW Sec. 18-9n-78.
T.D. 1,805 ft.; straightreaming for 12½-in.; to set at 1,500 ft.
Continental Oil Co.'s No. 3 Hoyle, NW NW NE Sec. 34-9n-78.
Coring at 4,978 ft.

Jefferson County

Ruby Hill O. & G. Co.'s No. 1 Braden, SE cor. Sec. 24-4n-69.
S.D. 4,160 ft. for repairs.

La Plata County

McGarr Pet. Co.'s No. 1 Pinon Mesa, SE NE NE Sec. 34-33n-12w.
Spud. Sept. 12; drlg. 785 ft. (first report).

Las Animas County

Mountain State Oil Corp.'s No. 1 Nickola, C NE NE SE Sec. 10-34-62.
S.D. 1,640 ft.

Lincoln County

Consolidated Smelting & Metals Co.'s No. 1 Hancock, NE NE Sec. 7-17s-52.
T.D. 1,790 ft.; drlg. up bailer.

Moffat County

The Mountain Fuel Supply Co. apparently has a commercial oil well in its No. 1 Kuykendall, NE cor. SE Section 22-12-100, on the Hiawatha gas dome in a second sand in the Wasatch formation and is preparing to complete at 2,480 feet. This well was completed at 2,025 feet in 1928 for 37,000,000 feet of gas in the first 24 hours. The pay was in the upper Wasatch at 1,992-2,025 feet. Several years ago it began showing a little oil. Last month it started drilling deeper to the second sand. It set the 6⅝-inch at 2,248 feet and in bailing test this week made 147 bbls. of 31 gravity crude. There was practically no gas with the oil. It is located about three-eighths of a mile to the southeast of its No. 1 Florence Wilson, the discovery well, which came in in 1926 for 58,000,000 feet a day at 2,200 feet. When this well was shut in it began to show some green oil around the fittings. Three years ago it was decided to drill deeper to ascertain the source of the oil. It was deepened to 2,232 feet and recompleted for 1,000,000 feet of gas and some oil. It is still making 1,000,000 feet of gas and 15 bbls. of oil a day. A year ago the company drilled to the second sand in No. 4-B Florence Wilson, C NE NW Section 23-12-100 and completed it for 20 bbls. a day at 2,304-37 feet. The Hiawatha gas field supplies part of the gas for the Mountain Fuel Supply Co.'s pipe line system into Utah.

Mountain Fuel Supply Co.'s No. 1 Kuykendall, NE NE SE Sec. 22-12n-100w.
T.D. 2,480 ft.; testing.
Stanolind O. & G. Co.'s No. 16-X Parkinson, 220 ft. W and 618 ft. of NE cor. Lot 5 (SW NW NW), Sec. 23-4n-92w.
Spudding at 100 ft.

Montezuma County

McElmo Oil Co.'s No. 1 West, NE NW NE Sec. 21-36n-17w.
T.D. 3,705 ft.; fishing for tools.

Morgan County

Swisher et al's No. 1 Lunt, 92 ft. W of E line and 360 ft. N of S line, Sec. 3-4n-60.
Reran 4½-in. to bottom at 1,079 ft. and resumed drilling.

Park County

South Park Oil Co.'s No. 1 State, SE SE SW Sec. 16-11s-75w.
Landed 6⅝-in. on bottom at 3,560 ft. and resumed drilling.

Prowers County

Trojan O. & G. Co.'s No. 1 Lotus Oil, NW NE NE Sec. 15-23-46.
Drlg. around 5,600 ft.

Routt County

Mid-Colo. Pet. Co.'s No. 1 Omhalt, NE NE SE Sec. 29-4n-87w.
T.D. 2,750 ft.; cmtd. 8¼-in. at 2,725 ft.; W.O.C.

Washington County

Fremont Buttes Oil Co.'s No. 1 Gilcrest, SW SE SW Sec. 22-3n-53w.
S.D. 200 ft.; 15½-in. at 137 ft.

WYOMING

Some time ago the Wyoming Land Board made a contract with Shepherd-Pendleton Co. of California, to investigate the engineering practices of oil companies operating on state land, audit their books and make a check of the operations of the companies to determine whether the state was receiving proper royalties from oil production. The contract was on a contingent basis, the company to receive 25 per cent of the first $1,000,000 recovered for the state that allegedly might have been withheld in their accounting and engineering methods. Any recovery above $1,000,000 was to result in a fee of 16⅔ per cent. George D. McDougall brought suit in the Laramie County district court attacking the validity of the contract and lost the case. It was appealed to the Supreme Court which the past week reversed the lower court and held the contract to be invalid.

Albany County

California Co.'s No. 2 Hoist, SW NE SE Sec. 13-17n-77.
Drlg. 3,490 ft.
California Co.'s No. 1 Wilson, NW SW SW Sec. 18-17n-76.
S.D. 1,010 ft. (cor.) for wtr.
Ohio Oil Co.'s No. 1 Emery, C SE NE Sec. 30-15n-75w.
Drlg. 1,025 ft.

Big Horn County

J. W. Bales' No. 1 Parker, C SW SW Sec. 23-49-89.
Drlg. 463 ft.
Peter Evanoff's No. 1 Griffin, Lot 60, Sec. 4-55-97.
Drlg. 1,750 ft. and carrying 15½-in.
Peter Evanoff et al's No. 1 McAllister, Lot 50, NW NE SE Sec. 3-55n-97w.
Drlg. 1,916 ft.
Joan Oil Co.'s No. 1 Howell, NW SE NE Lot 63, Sec. 32-55n-97.
Drlg. 1,305 ft.
Kinney-Coastal Oil Co.'s No. 3 Government, SW NW NE Sec. 24-56n-98w.
T.D. 4,234 ft.; M.I. rotary to drill deeper.
W. S. Gilbert's No. 1 Zaring, SE SE SE Sec. 35-52n-93w.
S.D. 850 ft.
Ohio Oil Co.'s No. 3 Byron Union, SE NW NE Sec. 22-56-97.
Coring 3,708 ft. in Tensleep and showing good saturation; top at 3,636 ft.
Ohio Oil Co.'s No. 4 Byron Union, SW NE Sec. 22-56-97.
Rig up.
Ohio Oil Co.'s No. 3 Sessions, NW SW NW Sec. 35-56n-97w.
T.D. 3,345 ft.; fishing for drill pipe.
Montana-Wyoming Oil Co.'s No. 1 Government, Lot 52, Sec. 18-56n-97w.
Drlg. 2,300 ft.
Peay Oil Co.'s No. 2 Government, SE SE SE Sec. 10-55n-97w.
Sidetracking at 3,130 ft.
J. H. Shaffer's No. 1 Keachie, C SW SW Sec. 7-49-91.
Drlg. 1,250 ft.; 6⅝-in. at 1,180 ft.
Taylor Oil Co.'s No. 1 Hoskins, Lot 5, (SE SE), Sec. 25-56-97.
S.D. 5,275 ft.
Wyoming O. & R. Co.'s No. 1 Evans, NE NE NW Sec. 12-49-91.
Set 1½-in. at 85 ft. (cor.) and S. D.
Yale Oil Corp.'s No. 1 Allen, Lot 52, Sec. 3-56n-97w.
Drlg. 3,021 ft.

Carbon County

The Union Oil Co. of California has made a location for a Sundance test on the Dutton Creek structure, the first well it has drilled in the Rocky Mountain area since it sold its holdings to the Continental Oil Co. in 1929. The test is its No. 1 Union Pacific, NE SW SE Section 1-18-78, to the north of the shallow gas wells drilled by the Mutual Oil Syndicate and an offset on the northeast to the old Midwest's No. 31 Eads, which made 125 bbls. initial in the Muddy at 4,880 feet. The Union company obtained the oil and gas rights to formations below the Muddy in the structure from the Mutual syndicate and the location was spotted after a seismograph survey by John H. Wilson's Colorado Geophysical Corp.

Ohio Oil Co. and California Co.'s No. 2 State, C NW NW Sec. 36-21n-79w.
Drlg. 5,059 ft. in Muddy; show of oil.
Ohio Oil Co.'s No. 5 Diamond Cattle, NW SW NW Sec. 35-20n-78.
Cmtg. perforations in liner at 2,832 ft.; to drill deeper.
Ohio Oil Co. and California Co.'s No. 1 Union Pacific, Acct. J, NE SW NW Sec. 25-21-79w.
Drlg. 778 ft.
General Pet. Corp.'s No. 1 Whitford, SW SE NE Sec. 24-20-84.
Coring at 5,396 ft. in Frontier.
General Pet. Corp.'s No. 1 Union Pacific, C SW SW Sec. 19-20-83.
S.D. 5,931 ft.; may be deepened.
Sinclair Wyoming Oil Co.'s No. 9 Wertz, NE NW NW Sec. 7-26n-89w.
T.D. 2,320 ft.; 8¼-in. at 2,265 ft.; W.O.C.
Shirley-Wyoming Oil Co.'s No. 1 Government, NW NE Sec. 2-26n-80w.
Drlg. 439 ft.
Union Oil Co. of Calif. and Mutual Oil Synd.'s No. 1 Union Pacific, NE SW SE Sec. 1-18n-78w.
Rig up (first report).

Converse County

Chadron-Osage Oil Co.'s No. 1 State, SW cor. Sec. 16-32-69.
S.D. 1,400 ft.
Continental Oil Co.'s No. 60 State, NW SW NE Sec. 9-33-76.
T.D. 4,364 ft.; saturated core at 4,362-64 ft.; greenish gray sand at 4,358-64 ft.
Otto Olson et al's No. 1 Carey, Sec. 6-32-71.
S.D. 642 ft.
John Ackard's No. 1 Daniels, SW SW SE Sec. 17-32-71.
Ddrlg. 2,000 ft.

Crook County

M. D. Miller and others' No. 1 Rockford-Wyoming, CNL NE SE Section 13-52-62, in the Rocky Ford dis-

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trict, formerly Dr. B. R. Kinter, was plugged and abandoned at 1,430 feet. It had water in the Madison lime at 1,170 feet and a show of oil in the top of the Whitewood at 1,300 feet.

Fremont County

Mid-American Oil Co.'s No. 3 Government, NW NE SW Sec. 25-28-92.
Drlg. 1,020 ft. (cor.).
Nelson & Poupiert's No. 3 Enos, Lot 7, Sec. 27-3n-1w.
Drlg. 1,100 ft.; showing for 1 bbl. of oil.

Hot Springs County

California Exploration Co.'s No. 2 Government, NW SW NW Sec. 7-44-96.
Drlg. 3,812 ft.
Ohio Oil Co.'s No. 72 Millsiron Cattle Co., NE SE SE Sec. 19-46n-98w.
Drlg. 1,200 ft.; ran 10¾-in. through Frontier to 1,124 ft.
Oscar G. Grace's No. 1 Government, SW NW NW Sec. 21-43-92.
T.D. 618 ft.; P.B. to 425 ft. and testing show for a 2-bbl. well; plugged and abd.
Stanolind O. & G. Co.'s No. 30 State-Ridgely, SE SE SE Sec. 19-46n-98w.
Derrick up.

Natrona County

Midwest Oil Co.'s No. 26, C SE NW Sec. 25-40n-79w.
Cored through second Wall Creek to 1,562 ft.

Lincoln County

Senrab Oil Co.'s No. 3 Government, N SE NW Sec. 10-26-113.
Drlg. 1,015 ft.
Superior-Wyoming Oil Co.'s No. 2-B, Lot 3 (NW NW), Sec. 3-26-113w.
S.D. 890 ft.

Niobrara County

Ohio Oil Co.'s No. 4 Putnam, in the Lance Creek Field, which was being completed at 4,000 feet when an accident occurred resulting in the death and injury of several employes, has recovered the lost drill pipe and is preparing to test. Before the accident it showed for 60 bbls. an hour through the drill stem.

Black Hills Refining Co. has temporarily abandoned its location for No. 1 Wright, SE cor. SW Section 22-36-64, northeastern part of Lance Creek Field, and has made locations for two other wells.

The Adams Louisiana Co. is making a geophysical survey of the Lance Creek area with a crew of 17 men.

Black Hills Ref. Co.'s No. 1 Wyrick, C SW NE Sec. 28-36n-64w.
Derrick; W.O. rotary (first report).
Black Hills Ref. Co.'s No. 1 Mills Est., C SE NW Sec. 27-36n-64w.
Location (first report).
Continental Oil Co.'s No. 3 Joss, 200 ft. E of C NW NE Sec. 6-35n-65w.
Drlg. 2,402 ft. in shale and limes.
J. H. Huber Co.'s No. 1 Joss, NE SE NW Sec. 6-35n-65w.
Drlg. 3,580 ft.; slight saturation at 3,542-45 ft.
Interstate O. & R. Co.'s No. 1 Morrell, NW NE SE Sec. 9-39-51.
T.D. 3,030 ft.; P.B. to 2,835 ft.; S.D.
Fall River Royalty & Producers Co.'s No. 5-L Briggs, CSL NE NE Sec. 2-39n-61w.
Drlg. 385 ft.
Ohio Oil Co.'s No. 5 Converse Sheep, C SE SW Sec. 32-36-65w.
Rig up.
Ohio Oil Co.'s No. 7 Lamb, C NW NE Sec. 5-35n-65w.
Rig up.
Ohio Oil Co.'s No. 4 Putnam, C SW SW Sec. 3-36-65.
T.D. 4,000 ft.; cmtd. 7-in. at 3,926 ft.; W.O.C.
Riggs Drlg. Co.'s No. 1 Spaugh, CNL NW NE Sec. 5-33n-65w.
T.D. 1,320 ft.; fshg. for bit.
B. & H. Dev. Co.'s No. 1-A Olinger, SE NE NW Sec. 1-36-63.
Cmtd. 5-3/16-in. at 1,635 ft.; drlg. ahead.

Park County

Continental Oil Co.'s No. 4 Northern Pacific, NW NE SE Sec. 23-58n-98w.
Location.
Geo. T. Beck's No. 1 fee, NW SE NW Sec. 27-52-101.
Drlg. 1,421 ft.
Garland Oil Co.'s No. 2 Government, SE NE NW Sec. 14-56-98.
S.D. 2,160 ft.
Resolute Oil Co.'s No. 1 State, C NW SW Sec. 16-57-101.
S.D. 3,608 ft.

Sheridan County

Beaver Creek Oil Synd's No. 1 Allison, SW SE Sec. 15-55-85.
Drlg. 2,775 ft.

Sublette County

Texas Co.'s No. 3-C, SE SE NW Sec. 34-27n-113w.
Spudding 65 ft. (first report).
Piney-LaBarge Oil Co.'s No. 2 Government, CEL NE NW Sec. 18-28-113.
Drlg. below 520 ft.

Sweetwater County

Vermillion Oil Co.'s No. 1 Government, SW SW SW Sec. 7-12n-99w.
Moving in material.
Sinclair-Wyoming Oil Co.'s No. 6 U.S.P., SW SW NW Sec. 11-26n-90w.

Uinta County

Druscilla Connell, et al's No. 5 Government, SW NW NW Sec. 24-15n-118w.
Drlg. 980 ft.
Intermountain Pet. Corp. of Utah's No. 1 Union Pacific-Hayes, SW NW SW Sec. 29-14n-118w.
T.D. 1,540 ft.; U.R. 5-3/16 in. to set on top of sand at 1,537 ft.; show of oil.
W. D. Marshall's No. 1 Government, NW SW SE Sec. 12-15n-118w.
Drlg. 400 ft.

Washakie County

Arlton & Doyle's No. 1 Government, SW SW SE Sec. 29-48n-91w.
Drlg. 600 ft.
Wyoming O. & R. Co.'s No. 1 Frison, NW SW NW Sec. 14-48-91.
Drlg. 1,710 ft.

Weston County

Conway Oil Corp.'s No. 1 Government, C SE NW Sec. 7-41-60.
Fishing for tools 2,087 ft.
Des Moines-Osage Synd.'s No. 11, CNL NE NE Sec. 25-46n-64w.
Rigging.
Federal Oil Co.'s No. 3 Government, C NE SE Sec. 15-46n-64w.
Rigging.
Beaver Creek Oil Synd.'s No. 1 State, C NE NE Sec. 23-44-63.
Spudded and S.D.
Harkins et al's No. 1, SW SW NW Sec. 31-46n-64w.
Dry and abd. at 1,606 ft.
Henry Egbert's No. 2, SW NE SE Sec. 8-46n-63w.
Location (first report).
Albert Jones' No. 11 Bock, SW NW NE Sec. 21-46n-63w.
Drlg. 260 ft.; (first report).
L. C. Packham's No. 1, NW NW NW Sec. 19-46n-63w.
Resumed at 450 ft.; R.U. to run 8¼-in. to bottom.
Grytler Holm's No. 1 Apostal, NW SE SW Sec. 4-46n-63w.
S.D. 140 ft.

MONTANA

Big Horn County

Daniels Pet. Co.'s No. 1 May, C SE SE Sec. 13-1s-33e.
Drlg. 2,731 ft.
Enterprise Oil Co. et al's No. 2 Lynde, SW SW SE Sec. 21-6n-35e.
Drlg. 3,700 ft.

Carbon County

Bailey Round Butte Oil Co.'s No. 1, 1,120 ft. W of E line and 3,140 ft. N of S line, Sec. 3-6s-23.
Drlg. 1,405 ft.

Cascade County

C. Leonard Smith's No. 1, NE NE SW Sec. 14-22n-2e.
S.D. 143 ft.

Choteau County

Mills & Decker's No. 1, NE NW Sec. 29-27n-13e.
Rig up.

Fallon County

The Montana-Dakota Utilities Co.'s deep test on the Baker-Glendive, or Cedar Creek structure, which is headed for objectives at around 7,000 feet, encountered water in the Dakota at 3,740-60 feet and is drilling ahead at 3,862 feet. This company is drilling a second well to the shallow gas sand in its No. 74 Government.

Montana-Dakota Utilities Co.'s No. 1, NE NW Sec. 17-3n-62e.
Drlg. 3,862 ft.
Montana-Dakota Utilities Co.'s No. 74, NE SE SW Sec. 34-10n-58e.
Drlg. 830 ft. (first report).

Fergus County

Button Butte O. & G. Co.'s No. 1 Woodward, SE SE SW Sec. 20-14n-24.
Drlg. 3,095 ft.
Emmons et al's No. 1, 220 ft. W of E line and 2,140 ft. N of S line, Sec. 6-20-18.
Drlg. 2,150 ft.
S. W. Pennock et al's No. 1 Nordheim, NW NE NE Sec. 6-21n-18e.
S.D. 480 ft. (corrected).
E. A. Fenholt's No. 1, NW NW SW Sec. 24-21n-17e.
Rigging up.
Judith Operating Co.'s No. 1 Government, C SW SW Sec. 26-22n-17e.
Running 12½-in. at 400 ft.

Gallatin County

Montana Gas & Pet. Corp.'s No. 1 Adams, SE SE SE Sec. 36-2n-1e.
S.D. 2,400 ft.
Ben W. Ryan's No. 1 Tice, NE NE NE Sec. 28-1n-2e.
Drlg. 2,618 ft.

Glacier County

Two completions and one new location were made in the Cut Bank Field. The Hannah-Porter Co.'s No. 2 State, NE cor. Section 12-33-6w, just north of the town limits of Cut Bank, was completed at 2,970 feet and swabbed 130 bbls. first 16 hours from the pay at 2,930-55 feet. Top of the Cut Bank was at 2,925 feet and top of Ellis at 2,955 feet.

Consolidated Gas Co.'s No. 9 Tribal, SW NW NE Section 34-35-6w, swabbed 65 bbls. first 24 hours from the pay at 2,855-2,902 feet. The top of the Cut Bank was at 2,840 feet and total depth is 2,905 feet.

A. B. Cobb's No. 5 Walberger, C NE SE Sec. 35-35n-6w.
Rig.
Cobb-Pardee's No. 1 Morrison, 1,980 ft. S of N line and 475 ft. E of W line Sec. 24-33n-6w.
Rigging.
C. P. Castle's No. 3 State, C NW SW Sec. 36-35-6w.
Drlg. 2,717 ft.; considerable gas at 2,705-17 ft.
Chas. Grant's No. 1 Askins, Lot 24, Blk. 33, Sec. 12-33-6w.
Drlg. 2,780 ft.
Consolidated Gas Co.'s No. 10 Tribal, Lot 6 (SW SW NE) Sec. 34-35-6w.
T.D. 2,660 ft.; drlg. by tools.
Consolidated Gas Co.'s No. 1 Simero, C NE SE Sec. 1-33n-6w.
M.I.M.
Fowler et al's No. 1 Tweedy, SW SE SE Sec. 25-33-6w.
Drlg. 700 ft.
R. C. Tarrant's No. 1 Thacker Bond & Mtg., SE SW NW Sec. 27-32-5w.
Drlg. 1,560 ft.; (loc. cor.).
Montana Headlight Oil Co.'s No. 1 Allison, C SE NE Sec. 20-34-6w.
Drlg. 1,750 ft.
Montana Power Gas Co.'s No. 1 Maltby, C SE NE Sec. 8-33n-5w.
Cmtd. 7-in. at 2,810 ft.; W.O.C.
Montana Power Co.'s No. 1 Neumuth Unit, 2,640 ft. N of S line, 1,000 ft. E of W line, Sec. 29-35n-5w.
Drlg. 450 ft.; Colo. at 325 ft.; 10-in. at 410 ft. with 50 sacks.
Montana Power Gas Co.'s No. 1 Rigney, C NW NE Sec. 2-35n-6w.
Rigging (first report).
Royalite Co.'s No. 1 Hagen, NW SW Sec. 4-31n-7w.
Location (first report).
McCabe & Jeffries' No. 2 Government, SW NE SE Sec. 32-35n-5w.
Drlg. 1,735 ft.
Santa Rita O. & G. Co.'s No. 1 Jacobson, C NE SW Sec. 8-33n-5w.
Drlg. 1,950 ft.
R. C. Tarrant's No. 4 Miller, 100 ft. N of C SE NE Sec. 24-34n-6w.
Rig up; location changed.
R. C. Tarrant's No. 3 Getty, NW NW SE Sec. 2-34-6w.
Drlg. 550 ft.; Colo. at 495 ft.; 10-in. at 531 ft.
R. C. Tarrant's No. 5 Britton, C NW SW Sec. 12-34n-6w.
Drlg. 1,460 ft.
R. C. Tarrant's No. 6 Haglund, Jr., C SE NW Sec. 12-24-6w.
T.D. 2,845 ft.; shot 100 quarts at 2,802-32 ft.; C.O.
R. C. Tarrant's No. 3 Williams, C SE NE Sec. 11-34n-6w.
Ready to spud.
R. C. Tarrant's No. 2 Yunck, CEL NW Sec. 12-34n-6w.
Drlg. 2,710 ft.
Texas Co.'s No. 2 Peterson, C SW Sec. 23-36n-5w.
Drlg. in at 2,879 ft.
Texas Co.'s No. 5 Morrison, NW NE NW Sec. 22-35n-6w.
Cmtd. 10¾-in. at 350 ft.; 150 sacks.
Texas Co.'s No. 2 Long, SW NE SW Sec. 23-35n-6w.
T.D. 2,804 ft.; 7-in. at 2,802 ft.
Watson & Kistner's No. 1 Britton, C SE SE Sec. 14-34n-6w.
Drlg. 2,885 ft.; 1,500 ft. oil in hole.
Yukon Oil Co.'s No. 1 Federal Land Bank, 440 ft. N and 666 ft. W of SE SW Sec. 11-34n-6w.
Location.

Hill County

Independent Natural Gas Co.'s No. 1 Morphey, CEL SW SW Section 14-32n-17e, Box Elder district, was completed as a gas well in the Eagle sand at 1,319-27 feet for 6,250,000 feet a day with a rock pressure of 380 pounds.

Liberty County

Western Natural Gas Co.'s No. 1 Wallace, C SW NW Sec. 15-37n-4e.
Drlg. 1,229 ft.

Park County

Ben W. Ryan et al's No. 1, NE Sec. 28-2n-11w.
Ready to spud.

Petroleum County

H. H. Schwartz' No. 7 Government, NE SW SW Sec. 11-15n-29e.
Drlg. 1,350 ft. (first report).

Phillips County

Little Rocky Dev. Co.'s No. 1, SE SE SE Sec. 17-24-24.
S.D. to finance at 352 ft.
Phillips Dev. Co.'s No. 6 Government, NW SW Sec. 2-24n-24e.
S.D. 659 ft.; show gas at 568-604 ft.; water at 650-59 ft.

Stillwater County

Continental Oil Co.'s No. 1 Parker, 500 ft. N of S line and 660 ft. E of W line, SE Sec. 25-5s-17e.
Drlg. 2,840 ft. in black shale.

Toole County

There was one completion and two new operations reported in the Kevin-Sunburst Field. The M.P.F. Co.'s No. 7 McGowan, SE cor. Section 8-35n-2w, pumped 80 bbls. with a little water the first 24 hours from the Ellis-Madison at 1,534-35 feet after acidizing with 1,000 gallons.

Big West Oil Co.'s No. 1 Engle, C NE SE Sec. 2-35n-2w.
Drlg. 1,490 ft.
Carscallen & Mitchener's No. 1 Kreuger, C S half NE Sec. 10-34n-2w.
Drlg. 1,100 ft.
A. C. Crumley's No. 7 Shaw, NE SE SE Sec. 25-36n-2w.
Drlg. 1,425 ft.
Cassidy and Cassidy's No. 1 Veitch, 220 ft. W of E line, 660 ft. N of S line, Sec. 31-25-2w.
T.D. 1,630 ft.; fshg. for tools.
Coolidge & Coolidge's No. 3 Government, 1,980 ft. N of S line and 1,100 ft. W of E line, Sec. 35-36n-2w.
Ellis-Madison 1,760-62 ft.; sulfur wtr.; P.B. to Sunburst at 1,500-27 ft. and shot with 60 qts.
Huso Brothers' No. 3 Government, SW NE SE Sec. 14-35n-3w.
Drlg. 560 ft. (first report).
Imperial-Craig Oil Co.'s No. 17 Bloom, Sec. 19-35n-1w.
Drlg. 515 ft.
Fred R. Mauger's No. 1 Government, SW NE NW Sec. 13-25-2w.
Drlg. 600 ft.
W. M. Hanlon's No. 3, SW NW SE Sec. 27-35n-3w.
Drlg. 1,712 ft. (first report).
Monopeg Oil, Ltd.'s No. 3 Dipple, S SW NW Sec. 28-35-1w.
Sidetracked tools 1,335 ft.; repairing rig.
Mon-Tex Pet. Co.'s No. 1 fee, NW SW Sec. 27-35-1w.
R.U. pump unit at 1,775 ft.
Nepstead - Montgomery - Farther's No. 1 Grass, 660 ft. W of E line and 220 ft. N of S line, Sec. 17-35n-1w.
Rigging.
Ohio Oil Co.'s No. 8 Reeg, NW NW SW Sec. 14-35n-2w.
Location (first report).
Ohio Oil Co.'s No. 1 Sindon, NW NW NW Sec. 1-35n-2w.
Rigging.
Pfabe & Engleking's No. 10 Government, SW SW SE Sec. 19-35n-2w.
Drlg. 1,100 ft.
E. O. Reickhorr's No. 2 Government, SW SW NE Sec. 3-35-3w.
S.D. 1,030 ft.
Stock Brothers' No. 3 Haggerty, NW SW SW Sec. 13-35n-2w.
Drlg. 1,450 ft.
R. C. White's No. 1 Haugen, NE NE SE Sec. 11-35-3w.
Spudding (first report).
C. Leonard Smith's No. 1 Eckhoff, C SE Sec. 6-33n-2e.
S. D. 575 ft. for new boiler.
C. Leonard Smith's No. 1 Federal Land Bank, C NE SE Sec. 11-33n-1e.
Spudding at 175 ft.
C. Leonard Smith's No. 1 L. Halverson, C NE SE Sec. 18-3n-2e.
Drlg. 730 ft.; tested 500,000 ft. of gas at 720 ft.
C. Leonard Smith's No. 1 E. Halverson, NW NE Sec. 18-33n-2e.
Drlg. 410 ft. with Star machine.

UTAH

Grand County

Columbia Crude Co.'s No. 1 Rath, SW SE Sec. 12-25s-20e.
S.D. 80 ft. (cor.).
Utah Southern Oil Co.'s No. 1 Hyde, SE NW NW Sec. 3-22n-22e.
Spudding in 15½-in. hole.

Summit County

Longwell Pet. Co.'s No. 1, SE SW SE Sec. 35-3n-5e.
S.D. 1,210 ft.

Utah County

Diamond Oil Co.'s No. 4 Government, CSL SE NW Sec. 16-8s-5e.
Drlg. 4,350 ft.

Washington County

Arrowhead Pet. Co.'s No. 2 Escalante, NW NW NE Sec. 19-43-15.
T.D. 4,114 ft. P.B. to 3,250 ft.; shot and C.O.
Arrowhead Pet. Co.'s No. 1-A, SE SW NE Sec. 1-43-15.
Drlg. 2,640 ft.
Anna V. Toney's No. 1 Toney, CNL NE SE Sec. 33-40s-11w.
Drlg. 370 ft. (first report).
W. W. Toney's No. 1 Government, CNL SE SW Sec. 18-41s-12w.
Drlg. 185 ft. (first report).

Eastern Field Report

By STAFF CORRESPONDENT

INTEREST NOW CENTERS ON DEEP TESTS NEARING SANDS

PITTSBURGH, Pa., Oct. 14.—Twenty-three drilling operations were terminated in the lower Eastern fields during the week with 13 gassers, 5 oil wells good for 61 bbls., and 5 dry holes. West Virginia reported 10 gas wells, 2 oil wells with an initial of 43 bbls., and 3 dry holes. Southeastern Ohio reported two gassers and two dry holes and three oil wells with initial showing of 18 bbls. Southwestern Pennsylvania had one gasser. Interest continues unabated in the deep tests with several efforts nearing the intended sands.

SOUTHEAST OHIO

Lucy Holmes and others have a fair gasser on the Charles McKenzie farm in Sutton Township, Meigs County, from the Berea at 2,038 feet. Ohio Fuel Gas Co. brought in a small gasser in its second test on the Earl Winter property, same township, in the same formation at 2,097 feet.

In Coshocton County, Liverton Township, Harmer Tuscon and others have a 10-bbl. well on the Jacob Neiderhouser farm. Drilling was completed at 2,875 feet in the Clinton sand. Thistle Oil Co.'s No. 8 on the Nearlos C. Stotler farm in Monroe Township, Perry County, was good for 7 bbls. after shot in the Berea at 1,105 feet. B. M. Tyree and others have a 1-bbl. producer from the Cow Run sand at 715 feet in a second test on the Mary E. Jividen tract in Sutton Township, Meigs County.

In Union Township, Knox County, Upham Gas Co. completed two dry holes. The test on the Lovey Sapp farm in Section 11 was dry in the Clinton sand at 3,160 feet and that on the Ira Wheeler farm in Section 12 was dry in the same formation at 3,107 feet.

WEST VIRGINIA

Pond Fork Oil & Gas Co. completed No. 22 on the Cole and Crane tract in Washington district, Boone County, as a gasser at 1,776 feet. Big Lime formation was hit at 1,088 to 1,248 feet, Big Injun 1,248-92 feet, Berea at 1,744 feet and gas from 1,748-52 feet.

In Logan district, Logan County, Boone County Coal Corp. got a 2,000,000-foot gas well in No. 4 on its own tract. It was completed in slate and shells at 2,470 feet. Lee Sansom and others finished their test on the F. L. Whitaker farm in Guyandotte district, Cabell County, as a small gas well after drilling to 2,690 feet and brown shale formation. The test of Brown Gas Co. on the F. L. Bias farm in McComas district, Cabell County, was drilled to the Big Injun sand at 1,437 feet. It was completed as a gasser good for 1,500,000 feet.

The test of A. E. Ellis and others on the J. W. Cunningham tract on Bull Fork of Tanner Creek in DeKalb district, Gilmer County, came in as a 1,000,000-foot gasser from the Injun sand. Hope Construction & Refining Co. drilled on the K. C. Simmons farm to 3,372 feet and shale formation to increase production from 3 to 8 bbls. daily. The Simmons farm is in Center district, Gilmer County.

In Union district, Ritchie County, Reno Oil Co. has a gas well on the Benjamin W. Wrick farm. This is an Injun sand well from 1,830 feet. The Hendershot and Smith second test on the W. B. Wamsley farm in Union district, Wood County, was completed as a 1,000,000-foot gasser from the Maxon formation at 1,669 feet. Harvard Gas Co.'s No. 3 on the W. Compton farm in Washington district, Kanawha County, was dry in Salt at 633 feet.

The Big Lime formation at 2,014 feet gave Guy Bogges and others a gas well on the Frank Wallbrown farm in Smithfield district, Roane County. In Cass district, Monongalia County, Carnegie Gas Co. has a gasser on the C. H. Brand property. This is a Big Injun sand well at 3,295 feet. Cambridge Gas Co.'s No. 3 on the W. A. Complin farm on Lick Branch of Coal River in Washington district, Kanawha County, was dry at 600 feet in a stray sand.

Virginia Gasoline & Oil Corp. has a 35-bbl. producer, after shot, on the G. Brown and Swann tract in Henry district, Clay County. This well, No. 4,562, was completed in the Big Injun sand at 2,076 feet.

Drilling in West Virginia

In Cabin Creek district, Kanawha County, Ten Mile Oil & Gas Co. is shut down at 2,350 feet in No. 18 on the H. C. Dickinson tract. Harvard Gas Co. is moving in for No. 4 on the W. Compton farm in Washington district, same county, and is shut down in No. 2 on the same farm at 3,325 feet. United Fuel Gas Co. has No. 4,568 on the S. L. Casey and others property in Big Sandy district down 1,585 feet. Godfrey L. Cabot is drilling at 1,025 feet on the W. D. Lewis farm in Malden district and is building roads on the N. B. Tompkins farm and has a rig for No. 9 on the Campbells Creek Coal Co. property in the same district.

Columbian Carbon Co. is rigging up for tests on the M. J. Dearing heirs property in Malden district and the W. L. Burdette farm in Elk district, Kanawha County. This company's second test on the G. and D. Copenhaver farm in Elk district is drilling at 910 feet.

Deep Tests

Godfrey L. Cabot, Inc. is now drilling at 1,977 feet on the A. F. Vorhoit farm in Loudin district, Kanawha County, and Winifrede Co.'s No. 39 on its own tract in the same district is down 1,735 feet. The Cabot test on the Edgewood Realty property, same district, is down for orders at 4,770 feet, and drilling in the second test on the Kanawha Land Co. tract at 225 feet. In Union district, same operator on the Alberta Putney farm is drilling at 1,000 feet.

B. F. Best and others' test on the H. A. Casdorph and others property in Union district is at 3,729 feet with drilling stopped. The same is true of Ellyson and Wilson's test on the Virgil C. Tate property, same district at 4,848 feet.

In Cabin Creek district, Kanawha County, Godfrey L. Cabot, Inc. is drilling at 3,324 feet in No. 49 on the A. D. Huntington tract and a rig standing for No. 50 on the same tract.

K. M. Hunt is rigging up on the Goldie Riddle farm on the waters of Mill Creek in Curtis district, Roane County. In Smithfield district, United Fuel Gas Co. has started drilling No. 1 on the S. R. Ferrell farm, and in Spencer district, George Smith and others have started drilling on the H. D. McKown tract.

United Fuel Gas Co. has started drilling No. 4,885 on the Clark farm on the waters of Charley's Creek, Curry district, Putnam County. F. H. Yates started drilling a second test on the tract he has on the West Fork of Twelve Pole Creek in Harvey district, Mingo County.

L. N. Rinehart and others—Western Turn Oil Co.—have a rig completed for No. 3 on the A. J. Glass farm in Clay district, Ritchie County. On the waters of Reedy Creek in Curtis district, Roane County, H. H. Staats and others have a machine for a second test on the R. R. Petty farm.

Rig is up for No. 9 of Pope and Patterson on the Robert and H. S. Wilson farm on Laurel Run in Murphy district, Ritchie County. United Fuel Gas Co. has started drilling No. 4,568 on the S. G. Casey and others property on Big Sandy Creek in Big Sandy district, Kanawha County.

The Benedum & Trees test on the Mary C. Wingfield farm in Elk district, Kanawha County, is being cleaned out after completion at 4,894 feet, Oriskany sand. It was producing better than 500,000 feet natural before the decision to shoot. Big Lime was found at 1,288-1,453 feet; Big Injun 1,453-91 feet; Berea 1,906-09 feet; Corniferous lime 4,686-4,794 feet and the Oriskany formation from 4,794-4,808 feet. Gas came in with the Oriskany formation.

SOUTHWEST PENNSYLVANIA

The single completion in southwest Pennsylvania was a light gas well on the Wencel Heine farm in Shaler Township, Allegheny County, belonging to J. S. Wally and others. This well was drilled to 3,150 feet where the Speechley sand was found.

Carnegie Natural Gas Co.'s second test on the C. W. Dunn farm in Amwell Township, Washington County, is drilling at 1,652 feet. Union Gasoline & Oil Corp. is fishing at 1,310 feet for tools on the Charles Van Kirk farm, same township. Wise Oil & Gas Co. completed No. 2 on the Ensley Kelsey farm at 2,835 feet after striking gas in the Thirty Foot sand at 2,816 feet. This well is testing.

Drilling Operations

In South Franklin Township, Washington County, the tools are being moved on the John Dodd farm by Carnegie Natural Gas Co. George Bungard & Co. have drilled their test on the Hiram Baker farm, same township, to 858 feet, and E. H. and J. B. Tague are shut down at 1,000 feet on the Hiram McClain farm. New Oil & Gas Co.'s test on the W. Dodd farm is drilling at 1,270 feet and continues fishing in its well on the John Ramsey farm at 850 feet.

Furman Nuss & Co. are drilling on the Jason Buchanan farm in South Franklin Township, Washington County, at 1,215 feet after striking oil in the Dunkard sand at 1,048-75 feet. Dunkard formation ran from 1,037-94 feet. The deeper drilling of the test of H. D. Freeland & Co. on the Winfield McCarty farm in West Bethlehem Township, has reached 2,870 feet.

The C. E. Hackney farm test of Moore, Orrill & Co. in Amwell Township, is drilling at 580 feet.

In Center Township, Greene County, Peoples Natural Gas Co. is drilling deeper in their well on the Kinsey Fox farm at the 3,058-foot level. Wasmuth and Callahan are down in trouble with No. 3 on the Daniel Goodwin heirs farm in Richhill Township, Greene County. The depth is 1,700 feet.

D. L. Shafer & Co. are shut down at 850 feet on the William Jones farm in Wayne Township, Greene County. Rutan Oil Co. is drilling at 2,550 feet in No. 3 on the C. T. Harvey farm in Center Township, and Lewis & Co. have a rig on the Samuel Chess farm in Richhill Township.

In Findlay Township, Allegheny County, Versoix Oil & Gas Co. is drilling at 780 feet on the T. A. McBride farm. Ed Olds & Co. is at 710 feet on the William Strouss farm, same township.

Pennsylvania Deep Tests

John Galey and others have their deep test on the William Graham farm on Rush Run in South Beaver Township, Beaver County, down 4,442 feet. Top of lime formation was encountered at 4,331 feet. This well is expected in within 10 days. There is a great deal of interest in the Galey well as well as in the test Carnegie Natural Gas Co. is drilling on the Gertrude Scott farm in South Shenango Township, Crawford County. The Scott well is drilling at 3,038 feet.

Texas and Louisiana Gulf

INTERESTING WILDCAT TESTS; GAS DISCOVERY IN VICTORIA

By
F. L. SINGLETON

HOUSTON, Tex., Oct. 14.—The discovery of a gas field in Victoria County, the favorable showing of a wildcat in East Baton Rouge Parish, Louisiana, that may be the forerunner of a new pool, together with the discovery of a deeper producing sand at the Bosco Field, Acadia Parish, and the announcement of three important deep wildcats for Galveston and Matagorda Counties, marked up another interesting week of developments for the Gulf Coast.

Southwest of the Coletto Creek Field, western Victoria County, Texas Co.'s No. 1 J. J. Warden in the Edward McDonough League, was washed in and completed for a dry gas well at a total depth of 4,494 feet. On a one-quarter inch positive choke it tested 2,510,000 feet of gas per day with casing and tubing pressure equalized at 1,850 pounds. It was originally drilled to 5,629 feet and after an electrical coring test was made, it was plugged back, sidetracked and redrilled to its present depth. The well was drilled jointly with Magnolia Petroleum Co. which blocked considerable acreage some time ago. Although no new locations have been made, it is understood another test will be started in the near future.

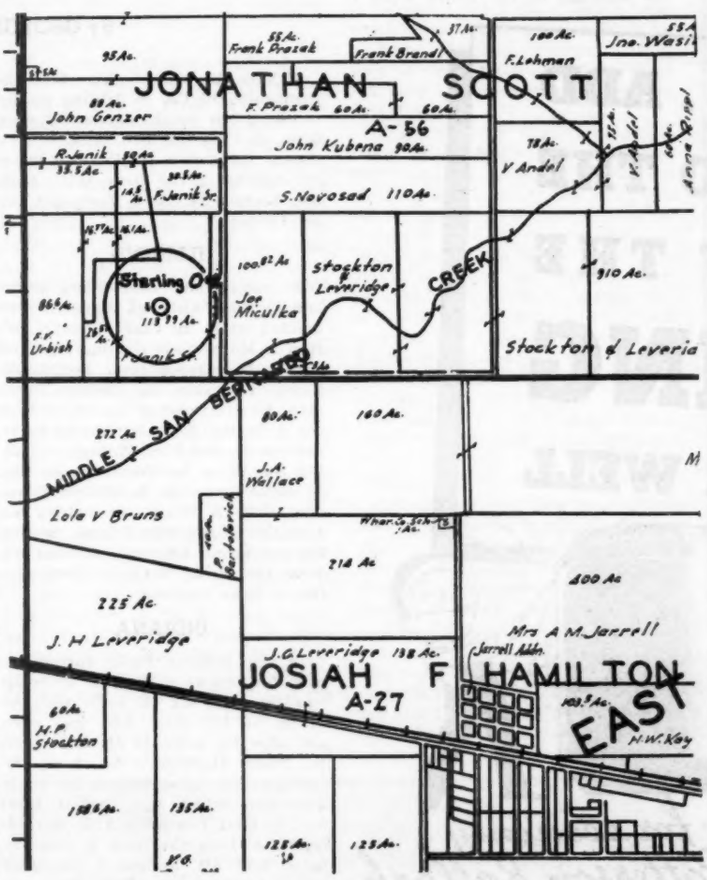
Galveston County

On the Greens Lake Prospect in the extreme southwestern part of Galveston County, Sun Oil Co. has made location for an interesting test on the J. D. Hughes lease, 2,000 feet southeast and 1,000 feet southwest of the north corner of the William C. Baker Survey. The company has done considerable geophysical work in the area and the test is scheduled to be drilled to 10,000 feet.

Matagorda County

At the Hawkinsville Dome, southeastern Matagorda County, the same company has rigged up for another deep test, No. 1 Craig, 1,546.9 feet southwest from the north corner along the northwest line of the lease and survey and thence 157.3 feet southeast at right angles in the Thomas Williams Survey. The dome was located by seismograph instruments by Gulf Production Co. in 1925 and the company drilled approximately 20 dry holes, on and off the cap before abandoning development. The cap rock topped at 98 feet, showed neither oil nor sulfur. The test is 50 feet south of Gulf Production Co.'s No. 7 Craig and is scheduled to be drilled to 8,000 feet, the deepest test drilled on the dome.

In the same county, but northwest, just south of Bay City, Hammon Exploration Co. has the rig up for No. 1 Mrs. May Cleveland, 330 feet from the east line and 330 feet from the south line of a 68-acre tract in the Elisha Hall Survey, Abstract No. 45. It is on a block of approximately 6,000 acres worked by a geophysical crew doing seismic reflection shooting and is to be drilled to Frio sand, the producing horizon of the Bay City Field which is found from 7,040 to 7,946 feet. In the Bay City Field, Skelly Oil Co. is moving in a rig for No. 1 Sally Johnson, 487 feet west of the east line and 395 feet south of the north line of a 27-acre tract in the M. Cummins Survey. It will be drilled to the deep sand encountered in the company's No. 3-B Cobb that is preparing to test at 7,635 feet. Before a drill stem test is made the operators were preparing to use a squeeze-out cement job.



—Map courtesy of W. W. Zingery, Esperson Building, Houston, Tex.

Location of Sterling Oil & Refining Co. and others' No. 1 Janik, a wildcat in northeastern Wharton County, preparing to test a deep sand from 7,867-79 feet. Total depth 8,667 feet

Wharton County

Sterling Oil & Refining Co. and others' No. 1 Janik, northeastern Wharton County, made a disappointing showing on a production test. Five-inch casing was cemented at 7,831 feet to test sand from 7,867-79 feet and after the plug had been drilled, the tubing was pulled back to 7,640 feet and the well was washed for two hours with clear water, when it began to flow a small stream of salt water with a very small flow of gas which was too small to estimate. It is now shut down for orders and it may be plugged back and tested again. It is in the Jonathan Scott Survey. In the northern part of the county, Navarro Oil Co.'s No. 1 E. P. Schoelman in the Nasario Mancha Survey was marked off as dry at total depth of 7,732 feet. It topped Catahoula at 2,890 feet, Discorbis at 3,172 feet, Heterostegina at 3,485 feet, Frio at 3,665 feet, Textularia Warreni at 5,106 feet Fayette at 5,612 feet, Massilina Pratti 5,745-50 feet, Hockleyensis 5,785 feet, Cockfield 6,585 feet and upper Saline Bayou at 6,960 feet.

Jackson County

Across the line in Jackson County, two locations were announced for the Mauritz Field. Approximately one-half mile south of the discovery well, Texas Pacific Coal & Oil Co. and Venza Oil Co. made location for No. 1 J. M. Rosborough, 330 feet each way out of the northwest corner of a 416-acre lease in the Morris and Cummins Survey No. 37. Offsetting the discovery well to the west, Shell Petroleum Corp. is building derrick for No. 1-A Mauritz, 682 feet south and 466 feet west of the northeast corner of a 160-acre tract in the A. Kountze Survey.

Hastings

At the Hastings Field, northeastern Brazoria County, Humble Oil & Refining Co.'s No. 1 Cannon extended the field 2,000 feet west when it flowed 29 bbls. per hour through a one-quarter inch choke with tubing pressure 900 pounds and casing pressure 850 pounds. It is bottomed at 6,100 feet with 7-inch casing cemented at 5,719 feet. A sand section showing oil was encountered from 5,725-6,093 feet.

Anahuac

One completion and four locations were marked up for the Anahuac Field, Chambers County. Sun Oil Co.'s No. 2 R. M. White in the James McGahey Survey, flowed 648 bbls. per day through a one-quarter inch choke with casing pressure 1,000 pounds and tubing pressure 900 pounds. It topped the first sand at 6,907 feet and was completed at a total depth of 7,082 feet. Seven-inch casing was cemented at 7,082 feet. All of the locations were made by Humble Oil & Refining Co. No. 2 Broussard was in Section 59, H.&T.C. Survey and No. 3-B Broussard was in the same section. In Section 58, H.&T.C. Survey, derrick is up for No. 9 Middleton and in the James McGahey Survey in the north end of the field, derrick is being built for No. 3 White.

Woodley Petroleum Co.'s No. 1 Blanke, an outpost test 1½ miles miles northeast of production in Section 41, H.&T.C. Survey, is coring in shale below 7,395 feet and seems certain of making a dry hole. It is far below the producing horizon. Salt water sand was cored from 7,248-56 feet. Offsetting the McCarthy producer to the east, Gulf Production Co.'s No. 1 Knowles is coring in sand and shale below 8,016 feet and will probably be abandoned during the week.

COASTAL LOUISIANA

At the close of the week, Superior Oil Producing Co.'s No. 1 Duplanter-Community in the western part of East Baton Rouge Parish, Louisiana, seemed certain of opening up a field due to a drill stem test which showed considerable gas and oil. The hole was originally drilled to 10,360 feet and after the drill stem was stuck at that depth, it was shot off at 6,

416 feet and the hole was plugged back with cement from 6,675 feet to 6,416 feet. After the cement had been drilled out from 6,416-6,515 feet, the 9⅝-inch casing which had been set at 7,745 feet, was perforated from 6,490-6,515 feet, and the operators made a one hour and a half drill stem test which showed 300 pounds of working pressure and 1,000,000 feet of wet gas through a one-quarter inch choke on top and bottom. While the first stand of the drill stem was being pulled, the well began to spray oil and continued to spray until 11 stands had been pulled at which time it made one 10-minute head most of which was oil. After the seventeenth stand had been pulled it showed water and it is not known whether it was fresh water or salt water.

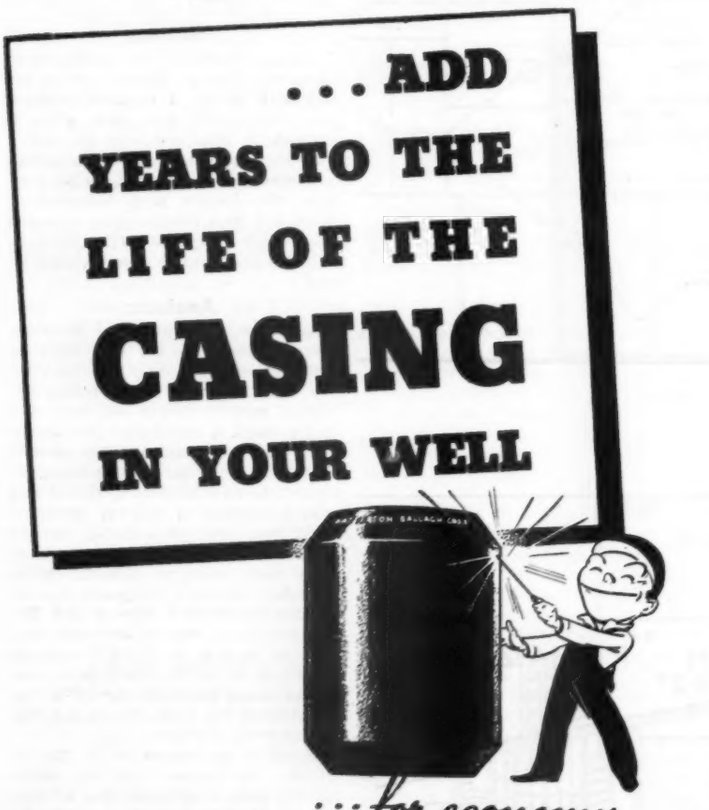
This has been one of the most watched wildcats on the Gulf Coast. It is on a large block worked with geophysical instruments, and is in Section 65-7s-1e. The test is bottomed at approximately the same depth which showed oil in a core that was taken from 6,690-6,720 feet and 6,820-55 feet. Salt water sand was also cored from 6,985-7,020 feet.

Interest in the Bosco Field, Acadia and St. Landry Parishes, is expected to be revived due to the discovery of a deeper producing sand encountered in two old wells deepened by Superior Oil Producing Co. No. 1 L. Johnson in the southern part of the field in Section 34-8s-3e, encountered sand showing oil from 9,092-9,107 feet and was drilled to 9,118 feet. After perforated liner was sealed in the casing and 2½-inch tubing set on seal at 8,586 feet, it flowed 210 bbls. of 37.8 gravity oil per day through a nine-sixty-fourths inch choke on tubing with tubing pressure 1,375 pounds, with no gauge on the casing. It was first completed for a producer at a total depth of 8,650 feet. That this sand may extend over part of the field seems almost certain as it was encountered in No. 1 V. Prejean, approximately 1,000 feet southwest which is preparing to test at a total depth of 9,034 feet. The sand was cored from 9,004-24 feet. It was completed in January at 8,585 feet.

The encroachment of salt water in a number of wells in the field has decreased activity considerably, but the showing of the above wells is expected to bring new life and many of the wells that have declined in production will no doubt be deepened to the new sand. At present there are 53 wells on production, making a daily average of approximately 16,000 bbls. of oil.

Tepetate

At the Tepetate Field, Continental Oil Co. has two wells that have reached the pay and casing will probably be set this week preparatory to test. No. 1 Homeseeker in Section 29-7s-2w, cored sand showing gas from 8,258-90 feet and is coring below 8,290 feet. No. 1 Henry Klump in Section 34, was drilled to 8,447 feet and is preparing to plug back after an electrical coring test showed sand from 8,326-39 feet and broken sand and shale showing oil and gas from 8,339-65 feet. Water sand was shown from 8,635-72 feet. No. 1 Federal Land Bank in Section 28, topped the Heterostegina at 7,090 feet and is drilling in shale below 7,434 feet.



Central West

Operations in Central Ohio, Kentucky, Illinois, Indiana

By GEORGE A. WHITNEY

FINDLAY, Ohio, Oct. 14.—The Peninsula Oil Co. is drilling an interesting test on the James Ellithorp farm, in Catawba Township, Ottawa County, in Section 25. Pease & Pease are drilling on the Steve Zelno, trustee, Section 14, Bath Township, Allen County.

ILLINOIS

No completions were found in the Illinois Field, although there are nine drilling wells. In Clark County, Gilford & Morrow are drilling No. 2 on the W. B. Johnson farm, Section 36, Casey Township. In Parker Township, C. Hartman & Co. is drilling No. 1 on the J. F. Baughman farm, Section 20, and J. S. Phillips is drilling No. 27 on his fee farm, Section 18, same township. In Prairie Township, Price & Weger are drilling No. 1 on the H. Standfield farm, Section 36, and Frank Ellison is drilling No. 1 on the E. R. McClain farm, Section 2, same township.

INDIANA

In the Indiana Field during the past few weeks a total of 19 wells was reported, six oil wells with an initial of 108 bbls., four gas wells and nine dry holes. In Daviess County, Frank Hartman's No. 1 on the Levie Arison farm, Section 29, Veale Township, which was dry at 1,550 feet. In Barr Township, A. T. Spaulding's No. 1 on the Beck & Overbay farm, NW SW Section 9, produced 8 bbls. at 632 feet, and Mid-West Development Corp. is drilling below 400 feet in No. 9 in Section 5, K. K. Dilley farm.

In Gibson County, Mid-West Development Co.'s No. 1 on the Auston Cato farm, Section 27, Columbia Township, produced an initial of 25 bbls. at 1,462 feet. In Center Township, Mid-West Development Co. is drilling No. 1 on the William A. and Etta Hodges farm, Section 2. Same company is drilling No. 1 on the Toney Williams farm, Section 33, and No. 4 on the A. J. Drysdale farm, NW SW Section 16, same township. In Washington Township, Big Four Oil & Gas Co.'s No. 9 on the C. T. Sloan farm, Section 18, produced 35 bbls. initial and W. C. McBride is drilling No. 1 on the Nannie Quiggins farm, Section 18, same township.

In Pike County, Dr. C. C. Taliaferro, Jr. is drilling on the Charles and Francis Carlisle farm, Section 10, Jefferson Township.

In Knox County, Harry Hanson & Co. is drilling No. 2 on the Oliver Smith farm, Section 4, Harrison Township. Phillips Petroleum Co. is drilling No. 3 on the S. Bond farm, NW NW Section 11, Busseron Township. In Decatur County, West Port Natural Gas Co. is drilling Nos. 1 and 2 on the Zack Boicourt farm, Section 32, Swan Creek Township. In Veale Township, Section 21, C. H. Parrott is drilling No. 1 on the Charles Honey farm, Section 21.

In Hancock County, J. Harve Snyder is drilling No. 1 on the William R. Low farm, SW SW Section 20, Brandywine Township.

In DeKalb County, Scott Stumler is drilling No. 1 on the Mary Milks farm, Section 5, Smithfield Township.

In Cass County, Abe Shelby is drilling No. 1 on the E. O. Skinner farm, Section 22, Miami Township.

KENTUCKY

Ohio County is taking the lead in development work in the State. In the Webster Pool, Petroleum Co.'s No. 10 on the Bellamy heirs farm, produced 30 bbls. initial, and in the same pool Teller & Co.'s No. 4 on the Arville Whitehouse farm, produced 35 bbls. initial. Marietta Oil Co.'s No. 1 on the T. Escridge farm, same pool, produced 5 bbls. Walter F. McConnell, receiver on the T. P. Royal 60 acres in the Maddox Pool, produced an initial of 20 bbls. James C. Ellis' No. 6 on Richard heirs farm, was dry in the Jet sand. Snowden-McSweeney Co.'s No. 2 on the J. W. Cheek farm, produced an initial of 15 bbls. Same company's No. 23 on the H. J. O'Dell 365 acres, produced 3 bbls. and No. 29 on the same farm produced 25 bbls.

In Hancock County, Hoosier Drilling Co.'s No. 1 on the Frank Richards 19 acres is a gas well.

In Daviess County, Sims Oil & Gas Co.'s No. 1 on the Bob Massie farm, a mile south of Owensboro, was dry.

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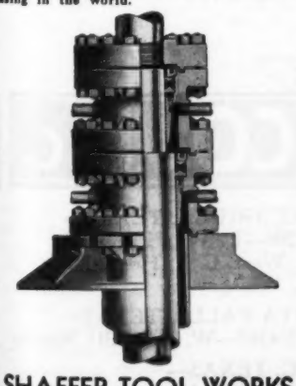

SHAFFER TOOL WORKS
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Among Gulf Coast Drilling Contractors

W. V. (Bill) Bowles was awarded the contract for another test for Texas Co. in the Manvel Field, Brazoria County. It is No. 4 Rash in the T. Spraggins Survey. He has also a rig running for the same company at the Batson Dome in Hardin County.

Turnbull and Irwin were awarded the contract for an interesting wildcat near Bay City in Matagorda County. The test will be drilled for the Hamman Exploration Co. and is scheduled to go to the Frio sand encountered in the Bay City Field from 7,040-7,946 feet.

Rowan Drilling Co. has spudded a scheduled deep test for the Salt Dome Oil Co. on a geophysical prospect near the Gulf of Mexico in Chambers County. Due to its location considerable time was taken before a special built road could be constructed to the location.

W. Claud Smith has completed the Texas Co.'s No. 2 Shofner for a distillate producer. It is in the Port Lavaca Field, Calhoun County.

Rutherford Drilling Co. is preparing to make a third test of a deep sand encountered in Skelly Oil Co.'s No. 3-B Cobb at the Bay City Field in Matagorda County. It is also deepening the company's discovery well to the deep sand and was awarded the contract for the company's No. 1 Sally Johnson, located in the same field.

A. T. (Cap) McDannald, of Smith and McDannald, has returned from a very successful hunting expedition spent with a party of friends in Wyoming. The game bagged by the party consisted of elk, moose, bear and various kinds of wild fowl. Cap received one of the best thrills of his life when he killed his first bear, a 300 pounder that would bring joy to any hunter. His company was awarded two more drilling contracts the past week, making a total of nine rigs running. A rig is being moved into the East Texas Field for Tide Water Oil Co. and also at the Mauritz Field, Jackson County, for Venza Oil Co. and Texas Pacific Coal & Oil Co. approximately a half mile south of the discovery well.

Cron and Gracey are moving in a rig for British American Oil Co. on the Nash Dome in Fort Bend County. This makes a total of nine rigs running as follows: Two at South Houston for Stanolind Oil & Gas Co.; one at Manvel for Texas Co.; one at East Texas for British American Oil Co.; one at Placedo for Barnsdall Oil Co.; one in Louisiana for Shell Petroleum Corp.; one at Eunice, New Mexico, for Repollo Oil Co., and one at Barbers Hill for Sinclair Prairie Oil Co.

C. & C. Drilling Co. is moving in a rig for the Coast Petroleum Co. for a deep test at the Dickinson Field, Galveston County. This is the second well to be drilled by C. & C. for this company. The first test was drilled to the 8,000-foot horizon in a record-breaking time and was completed for a large distillate producer. It is west of the first test and no doubt will be put down just as fast as the first test.

Al Buchanan of San Antonio completed two wells during the week and was preparing to drill plugs on four more in Southwest Texas. Stanolind Oil & Gas Co.'s No. 3 Walton in the Tuleta Pool of Bee County, and Shell Petroleum Corp.'s No. 7 Hubbard in Loma Novia, Duval County, were brought in. In the Seven Sisters Pool of Duval County, the contractor will complete No. 1 Wood-Welder for the Buchanan Blanco Oil Co. early in the week. Three wells in San Patricio County are waiting on cement: Plymouth Oil Co. wells on the C lease of the Welder ranch in the Plymouth Field. Rigs will move to two new locations in this field next week.

Trinity Drillers, Inc. are reconditioning Continental Oil Co.'s No. 6-A Sevier in the Driscoll Pool, Duval County, Southwest Texas. The well came in as a gas well making about 50 bbls. of oil per day.

George W. McMurray of San Antonio has commenced operations on two wells in the North Pettus Field, Gar Oil Co.'s No. 1 Belknap is drilling at 2,216 feet, and Dirks Brothers' No. 1 Ray is at 1,650 feet.

Skelly Oil Co.'s No. 3-B Cobb located at the Bay City Field which is being drilled by Rutherford Drilling Co. of Houston, Tex.

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Kansas Developments

KANSAS OIL MEN WILL TEST THREE FAR AWAY COUNTIES

By JAMES McINTYRE

Kansas operators are looking far afield for new oil pools. Lario Oil & Gas Co. & Elwell have made a location in SW NW Section 22-3-23w, in Norton County only a few miles south of the Nebraska line and on the Central Kansas Uplift. In addition to the Anderson & Kerr test in far southwestern Haskell County reported last week Piney Oil & Gas Co. has made a location for No. 1 Kennedy, C SW Section 10-29-36w in Grant County which, while it may be a gas test, judging from the fact that the location is in the center of a 160-acre tract, will also be watched for its oil possibilities. Rotary rig is up on the location.

Kanoka Oil & Gas Co. got a good Chat producer when it plugged back an old Viola lime well in the Ritz pool in McPherson County.

The Amerada and Sunray companies' No. 3 Gassoway in the Oxford pool won for itself a 15,781-bbl. potential on its short-time flow from Dolomite.

Kansas

Estimated daily average production of Kansas for the week ending October 12 and for the preceding week is as follows:

	Barrels	
	Oct. 12	Oct. 5
Oxford City	7,250	4,875
Burrton	15,925	17,775
Ritz-Canton	8,925	9,300
Hollow	2,975	3,150
Voshell	4,425	3,575
Nikkel	2,800	2,575
Sedgwick County	7,325	7,050
Ellsworth County:		
Lorraine	7,175	7,375
Other pools	2,685	2,410
Barton County	2,336	2,250
Rice County:		
Chase Pool	13,700	10,575
Raymond Pool	2,650	3,150
Remainder	8,115	7,900
Ellis County	430	450
Kingman County	730	700
Stafford County	2,575	2,425
Russell County	9,275	11,575
Greenwood County	10,800	10,750
Butler County	17,900	17,500
Other pools	19,229	18,090
Total Kansas	147,225	143,450

Russell County

The Texas Co.'s No. 2 Johnson, 330 feet from north and 1,097 feet from west lines of NE ¼ Section 2-14-15w, Russell County, Siliceous lime at pay at 3,330-32 feet, potential production 100 bbls.

New work in Russell County includes Central Petroleum Co.'s No. 1 Witt, SW SW SE Section 3-14-15w, a rig; J. C. Schaffer, Inc.'s No. 1 Polcyn, NE NE NE Section 10-14-15w, a rig; Smoky Hill Oil Corp.'s No. 3 Miller, NW NW NE Section 31-14-13w, moving in material; Skelly Oil Co.'s No. 1 Figgins, NW NW SW Section 34-15-13w, location; Skelly Oil Co.'s No. 1 Kluesner, SW SW NE Section 14-15-12, location.

Hartman & Blair's No. 1 Claussen, SE NE SW Section 34-12-14w, which found Oswald lime at 2,760 feet and pay at 2,796-2,800 feet, was acidized and later pumped 112 bbls. of oil and 57 bbls. of water. Drilling was resumed and the well was at a total depth of 2,850 feet. It is a wildcat.

Roth & Faurot's No. 1 Schaffer, C NW NE Section 31-13-12w, an Oswald lime well at 2,965-3,000 feet and a wildcat, made a potential production of 236 bbls. of oil and 15 bbls. of water and will be retested.

Billings and others' No. 6 Witt, NE NE SE Section 4-14-15w, had 1,500 feet of oil in the hole at 3,062-77 feet, total depth.

Phillips Petroleum Co.'s No. 1 Amelia, SE SW SW Section 6-14-14w, was drilling at 3,136 feet with 1,000 feet of oil in the hole. Quartzite was topped at 3,001 feet.

Nassau Oil Corp. found Siliceous lime at 3,315-18 feet, total depth, in No. 1 Karst, a wildcat in NW SW NE Section 27-15-14w. The hole filled 1,600 feet with oil in five hours.

Coralena Oil Co.'s No. 1 Berrick, NE NW NE Section 6-15-13w, a wildcat, was drilling at 2,935 feet. It had swabbed 65 bbls. in six hours from Oswald lime topped at 2,894 feet.

Brouk & Bailey tested their No. 1 Kluesner, NW NW SE Section 34-15-12w, a wildcat producing from Siliceous lime at 3,275-78 feet, and it produced 392 bbls. in 18 hours net. The oil is 40.6 degrees in gravity at a temperature of 68° F. It will be tested again for potential.

Ellsworth County

Franco Central Oil Co.'s No. 1 Frevort, SW cor. Section 8-17-10w, a wildcat in Ellsworth County, produced a potential of 72 bbls. of oil and 24 bbls. of water in three days and was abandoned. Siliceous lime lay at 3,320-55 feet and the hole was plugged back to 3,346½ feet.

Another Ellsworth County disappointment was Keith and others' test No. 1 Schepman, SW SW NW Section 22-17-10w, which had water in Siliceous lime at 3,352-75 feet and was abandoned.

Bradley & Scanlon and others' No. 7 Mohney, SW SW SE Section 14-17-9w, was completed. It made a potential production of 1,470 bbls. in 24 hours from Siliceous lime at 3,173-80 feet.

The Texas Co.'s No. 2 Dees, SE NE NW Section 23-17-9w, had Siliceous at 3,172-75 feet and pumped 1,823 bbls. in 24 hours. It was completed.

Carter Oil Co. completed No. 2 Teubner, C E half E half NW Section 26-17-9w, in the South Lorraine Pool. It produced 1,596 bbls. in 24 hours from Siliceous at 3,181-86 feet.

Skelly Oil Co. was building rig for No. 7 Dees, NW SE SW Section 14-17-9w.

Empire Oil & Refining Co.'s No. 12 Rolfe, NW NE NE Section 14-17-9w, in the Lorraine Pool, looks like a small well for that good pool. It pumped 13 bbls. of oil and 68 bbls. of water in 14½ hours from Siliceous lime at 3,211-14 feet.

Skelly Oil Co.'s No. 5 Dees, SW SE SW Section 14-17-9w, filled up 2,500 feet with oil in three hours from Siliceous lime at 3,174-78 feet. It was acidized but not tested.

Phillips Petroleum Co.'s No. 2 Melchert, SW SW SE Section 23-17-9w, was acid in Siliceous lime at 3,195-99½ feet and pumped 29 bbls. of oil and 175 bbls. of water in four hours. The Texas Co.'s No. 4 Dees, SE SE NW Section 23-17-9w, filled 1,600 feet with oil in two and one-half hours from Siliceous at 3,202-09 feet and No. 5 Dees, NW NE NW Section 23-7-9w, filled 2,000 bbls. with oil in two and one-half hours from Siliceous at 3,157-65 feet.

Rice County

C. B. Davis' and others' No. 5 Duesner, SE SE SW Section 31-19-10w, Chase Pool, Rice County, a completion, was good for 1,166 bbls. from Siliceous lime at 3,278-95 feet. It had not been acidized.

Gypsy Oil Co.'s No. 1 Wendell, NW NW SE Section 32-19-10w, made a potential of 1,428 bbls. in 24 hours from pay at 3,287-89 feet.

Phillips Petroleum Co. and Indian Territory Illuminating Oil Co. made a location for No. 7 Krampe, 890 feet from north and 126 feet from east lines of SE ¼ Section 31-10-10, and for No. 8 Krampe, 1,095 feet north and 220 feet west of SE cor. Section 31-19-10w. Bradley Oil Co. had rotary rig up for No. 1 Mitchell, 200 feet east and 1,100 feet north of SW cor. Section 32-19-10w. Gypsy Oil Co. was building rig for No. 3 Coffman, NW SW SW Section 5-20-9w.

Slick, Pryor & Lockhart, Inc., and others' No. 1 Roesler A, NE SE Section 5-18-10w, pumped 112 bbls. in 24 hours from Siliceous lime at 3,265-75 feet.

Continental Oil Co.'s test, No. 1 Ferguson, SW NW NE Section 8-18-7w, a wildcat, was acidized at 3,205-30 feet and swabbed 15 bbls. of oil and 4 bbls. of water per hour.

Tatlock and others' No. 1 Berscheit, NW cor. Section 6-20-10w, which found Siliceous at 3,272 feet and filled 2,200 feet with oil at 3,279 feet, was drilling at 3,295 feet.

Empire Oil & Refining Co.'s No. 11 Proffitt, NE SE SE Section 6-20-9w, pumped 116 bbls. of oil in three hours from Siliceous lime at 3,234-53 feet.

Sumner County

Completions in the Oxford Pool in Sumner County included Amerada Petroleum Corp. and Sunray Oil Co.'s No. 3 Gassoway, 1,100 feet from south and 685 feet from east lines of SW ¼ Section 14-32-2, potential production 15,781 bbls. of oil in 24 hours from Dolomite at 2,830-99 feet. It had been deepened from 2,098 feet. Lario Oil & Gas Co.'s No. 2 Wenrich, 228 feet from north and 586 feet from east lines of NW ¼ Section 23-32-2, 730 bbls. initially from Layton sand at 2,374-2,409 feet.

E. B. Shawver was moving in material for No. 1 Peasel, SW NW NE Section 33-31-1w, Sumner County.

Slick and others' No. 3 Peasel, 990 feet south and 1,320 feet east of NW cor. Section 33-31-1w, was acidized in Chat at 3,653-83 feet, and flowed 60 bbls. per hour.

Shell Petroleum Corp.'s No. 4 Emrich, 1,007 feet from south and 200 feet from west line of SE ¼ Section 14-32-2, deepened from 2,104 feet to Dolomite at 2,870 feet, had a hole full of oil at 2,908 feet.

Shell Petroleum Corp.'s No. 5 Emrich, 1,002 feet south and 212 feet east of C Section 14-32-2, flowed 1,327 bbls. in 20 hours from Dolomite at 2,828-2,906 feet.

Shell Petroleum Corp.'s No. 2-A Rothwell, 1,008 feet south and 705 feet west of C Section 14-32-2, deepened from 1,660 feet to Simpson Dolomite at 2,808-2,898 feet, flowed 5,341 bbls. of oil in 10 hours. Same company's No. 5 Rothwell, 611 feet south and 220 feet west of C Section 14-32-2, deepened from 2,096 feet to Dolomite at 2,802 feet, flowed 302 bbls. in 24 hours at 2,830 feet and was being deepened. Same company's No. 1 Scoggins B, 1,103 feet north and 1,087 feet east of SW cor. Section 14-32-2, deepened from 2,104 feet, was acidized with 4,000 gallons at 2,875-2,919 feet and pumped 322 bbls. in 17 hours. It was then given a 10,000-gallon dose but did not increase production.

Cowley County

Trees Oil Co. was building rig for No. 3 Houser, 660 feet south and 610 feet east of C Section 19-30-4 in Cowley County. C. Pulse was building rig for No. 1 Buss, NE NE NE Section 12-32-2. Lario Oil & Gas Co. and Barnsdall Oil Co. had rig up for No. 10-A Wenrich, 631 feet from east and 720 feet from north lines of NW ¼ Section 23-32-2.

Harvey County

Derby Oil Co. and others' No. 2 Heibert, SW SW SE Section 5-22-3w, pumped 107 bbls. of oil in 24 hours from Hunton lime at 3,524-46 feet, which had been shot with 40 quarts.

Sunray Oil Co. got a hole full of water in No. 1 Ewy, SE NE SE Section 14-22-2w, from Siliceous lime at 3,502-15 feet.

Greenwood and Woodson

W. M. Moore Oil & Gas Co.'s No. 3 Pixley, C S half SE NE Section 7-22-10, Greenwood County, is a 110-bbl. completion at 2,300-30 feet.

M. Reynolds and others' No. 1-A Merhenke, SW NE SE Section 34-25-11, was completed in Mississippi lime at 1,845-47 feet. It produced 20

bbls. of oil and much water in 24 hours.

Ward McGinnis & Markus' No. 2 Shook, NW NE SE Section 31-23-12, was dry and abandoned in Mississippi lime at 1,845-84 feet.

Sheedy and others' No. 5 Akins, SW NE SE Section 19-25-14, Woodson County, was shot in sand at 1,374-1,400 feet and started off at 50 bbls. It was completed.

DeGenther and others' No. 1 Rupp, NW cor. Section 20-25-14, Woodson County, was dry and abandoned at 1,509 feet.

Saco Oil Co.'s No. 1-A Hassenpflug, SW NW NE Section 34-25-14, is a 45-bbl. completion from sand at 1,460-1,505 feet.

Lee Tippy and others' No. 2 Stonebreaker, NW SE SE Section 32-27-11, was completed as a gas well, starting at 1,000,000 feet per day from sand at 1,138-52 feet.

Butler County

Sheldon & Wixson's No. 1 Dohren, C W half NW NE Section 11-25-3, Butler County, was completed in Mississippi lime at 2,700-22 feet. It started at 96 bbls. per day.

Mohawk Oil Co.'s No. 1 Overstreet, NW cor. Section 19-26-8, looks good for 40 bbls. a day from pay at 2,058-67 feet, but had not been tested.

McPherson County

Brosius and others' No. 1 Hanson, NE NE SW Section 15-17-2w, McPherson County, a wildcat, was abandoned at 1,108 feet. It had a hopeless fishing job.

Roth & Faurot's No. 5 Almen, NW SW SE Section 13-19-3w, was completed in Chat at 2,963-3,005 feet. It is a 35-bbl. well, also producing a lot of water.

Same operators' No. 6 Almen, SW SW SE Section 13-19-3w, had Kansas City lime at 2,337-60 feet. It produced 55 bbls. of oil and much water and was completed.

Empire Oil & Refining Co.'s No. 1 Froese, SE SE SE Section 7-22-3w, deepened from 3,556 feet to Siliceous lime at 3,598-3,607 feet, made a potential production of 51 bbls. per day for four days and was recompleted.

Selby Oil & Gas Co.'s No. 2 Sperling, NE SE SE Section 14-22-2w, is an abandoned location.

McPherson Oil & Gas Co. was moving in material for No. 4 Chindberg, SW NW NW Section 32-18-2w. Whan and others were drilling at 1,975 feet in No. 11 Stromquist, SW SE SE Section 2-19-3w, an old wildcat being deepened from 1,020 feet.

Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 6 Zerger, NE NW SE Section 16-21-3w, swabbed 40 bbls. in eight hours from Wilcox sand at 3,406-16 feet. It had been given three shots of 10, 20 and 25 quarts of nitroglycerin.

Kanoka Oil & Gas Co.'s No. 4, C E half W half SW Section 14-19-2w, in the Ritz Pool, was plugged back from 3,378 feet, where it was bottomed in Viola lime and had been a big producer, to 2,980 feet. It was shot with a casing gun in Chat topped at 2,902 feet and acidized with 1,000 gallons and then produced 1,774 bbls. of oil and 148 bbls. of water in 24 hours.

Sedgwick County

Dickey Oil Co. set 10-inch pipe at 86 feet in No. 4 Brown, SW NW NE Section 20-28-1e, in Sedgwick County.

Dickey Oil Co. and others' wildcat, No. 1 Chase, SE cor. Section 11-27-2, found Siliceous lime at 3,262-78 feet. It pumped 35 bbls. of oil and 5 bbls. of water in nine hours.

Reno County

Olson Oil Co. and Shell Petroleum Corp. have location made for No. 3 Krehbiel B, 1,320 feet south and 300 feet east of NW cor. Section 26-23-4w, Reno County.

Osage County

Jim Edwards' test in Osage County, No. 1 Detrich, C NW SE Section 21-14-15, was abandoned at 800 feet.

Barton County

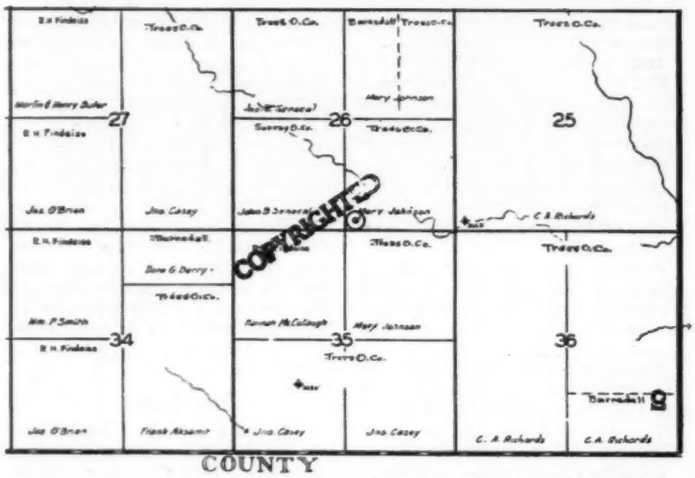
Suppes & Witt's No. 1 Hays, NW cor. Section 7-16-15w, Barton County, Section 16-11-17w, looked like a 100-bbl. well, at least, producing from pay at 3,032-40 feet, but had not been tested.

Marion County

Harwood Oil Co.'s No. 6 Cowman, SE SE SW Section 11-17-4, Marion County, was abandoned at 2,410 feet. It had oil and salt water in Chat at 2,354-94 feet.

Grant County

The most westerly drilling well in Kansas will be Piney Oil & Gas Co.'s No. 1 Kennedy, C SW Section 10-29-36w, in Grant County, about 44 miles east of the Colorado line. Rotary rig



—Mid-Continent Map Co., Wichita, Kans.

Trees Oil Co. and Findeiss open a pool in southern Rooks County, Kansas, with 250-bbl. well in SW SW SE Section 26-10-19w

was a hole full of water at 3,530-34 feet and was abandoned.

Torrey, Feaster and others' wildcat, No. 1 Feist, NE NE SE Section 29-18-11w, was a hole full of water from Siliceous lime at 3,392-3,400 feet and was shut down.

Another Barton County wildcat did better. Lario Oil & Gas Co. and others' No. 1 Peter, NW cor. Section 24-20-11w, pumped 305 bbls. of oil in 12 hours from Siliceous lime at 3,273-91 feet, total depth.

Ellis County

Tom Palmer and Storm King Oil Co. were building rotary rig for No. 1 Carl Ruder, NW NW NE Section 17-15-18w, in Ellis County.

L. Roark and others' wildcat test in Ellis County, No. 1 Bemis, SE cor. is up for the test 6 miles east and then 24 miles north of Hugoton, which town is the center of Kansas' greatest gas field.

Rush County

Schermerhorn's No. 1 Hagelgantz, C SE Section 11-18-16w, Rush County, is a 55,000,000-foot gasser in LaMotte sand at 3,495-3,523 feet and was completed.

Hugoton Gas Field

United Production Co. made a location for No. 1 Christopher, C NW Section 14-33-39w, in Stevens County, and Stevens Oil & Gas Co. set 12-inch pipe at 615 feet and was drilling at 2,180 feet in No. 1 Kelly, C NW Section 15-34-38w, Stevens County, both in the Hugoton gas field.

GULF COAST WATER SHIPMENTS DURING AUGUST

Company and terminal—	Crude—Coastwise	Crude—Exports	Refined—Coastwise	Refined—Exports	Total
Atlantic Pipe Line Co.:					
Atreco	1,669,405.09	.....	.....	.....	1,669,405.09
Texas City	397,379.26	.....	5,030.11	.....	402,409.37
Harbor Island	510,934.65	30,741.80	.....	.....	541,676.45
Gulf Refining Co.:					
Port Arthur	558,582.61	.....	2,124,515.80	231,234.69	2,914,333.10
Humble Oil & Ref. Co.:					
Baytown	423,023.58	164,619.78	2,348,962.92	539,147.45	3,475,753.73
Harbor Island	1,327,171.28	81,182.01	.....	.....	1,408,353.29
Texas City	1,072,814.05	.....	.....	.....	1,072,814.05
Magnolia Petroleum Co.:					
Beaumont	926,758.45	.....	1,304,061.90	.....	2,230,820.35
Pure Oil Co.:					
Smiths Bluff	554,562.00	.....	607,622.00	.....	1,162,184.00
Shell Petroleum Corp.:					
Houston	155,252.00	94,291.00	1,053,876.00	60,806.00	1,364,225.00
Norco	.....	.....	317,577.00	.....	317,577.00
Standard Oil Co. of La.:					
Baton Rouge	215,160.00	.....	1,087,271.00	272,669.00	1,575,100.00
Sun Oil Co.:					
Sabine Pass & Sun	1,501,789.43	.....	.....	.....	1,501,789.43
Texas Co.:					
Port Arthur	1,675,351.00	857,876.00	1,999,438.00	986,981.00	5,519,646.00
Miscellaneous:					
Houston	1,654,210.62	240,752.62	1,352,256.08	517,949.45	3,866,268.77
Total August, 1935	12,642,394.02	1,569,463.21	12,201,710.81	2,608,787.59	29,022,355.63
Total July, 1935	12,083,820.10	2,070,287.52	11,468,179.27	2,739,452.98	28,361,739.87
Difference	558,573.92	500,824.31	732,531.54	130,665.39	660,615.76

Marketers' Convention and Disintegration

One major question to be discussed at the annual convention of the National Oil Marketers Association in Chicago October 29-31 will be "What shall be the attitude of the independent oil jobber towards proposed disintegration of the major oil companies?" The discussion will follow a report by W. E. White, of Delta Oil Co., chairman of a committee studying the possibilities of disintegration of major companies which engage in marketing as well as in production and refining. Proponents of disintegration contend refiners who engage in marketing in competition with the independent oil jobber, use profits derived from production and refining to offset losses sustained in marketing, and by controlling the retail price as well as the price at which they sell to the independent jobber deprive the latter of a profitable margin.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ending September 28 totaled 305,050,000 bbls. Compared with the previous week, this total represents a decline of 1,587,000 bbls., comprising decreases of 1,572,000 and 15,000 bbls., respectively, in stocks of domestic and foreign crude petroleum. Stocks of all the principal grades of crude oil were reduced during the week ending September 28. In connection with the decline in California, it should be noted that the weekly reports do not include stocks on the leases.

Current reports of the industry for the week ending September 28 indicate declines in both production and runs to stills, with imports remaining virtually unchanged. Daily average crude runs to stills were approximately 2,820,000 bbls., whereas daily average imports of crude oil were 80,000 bbls. Daily average total demand was 3,127,000 bbls., which included 2,795,000 bbls. run to stills.

STOCKS OF CRUDE PETROLEUM, SEPTEMBER 21 AND 28, 1935

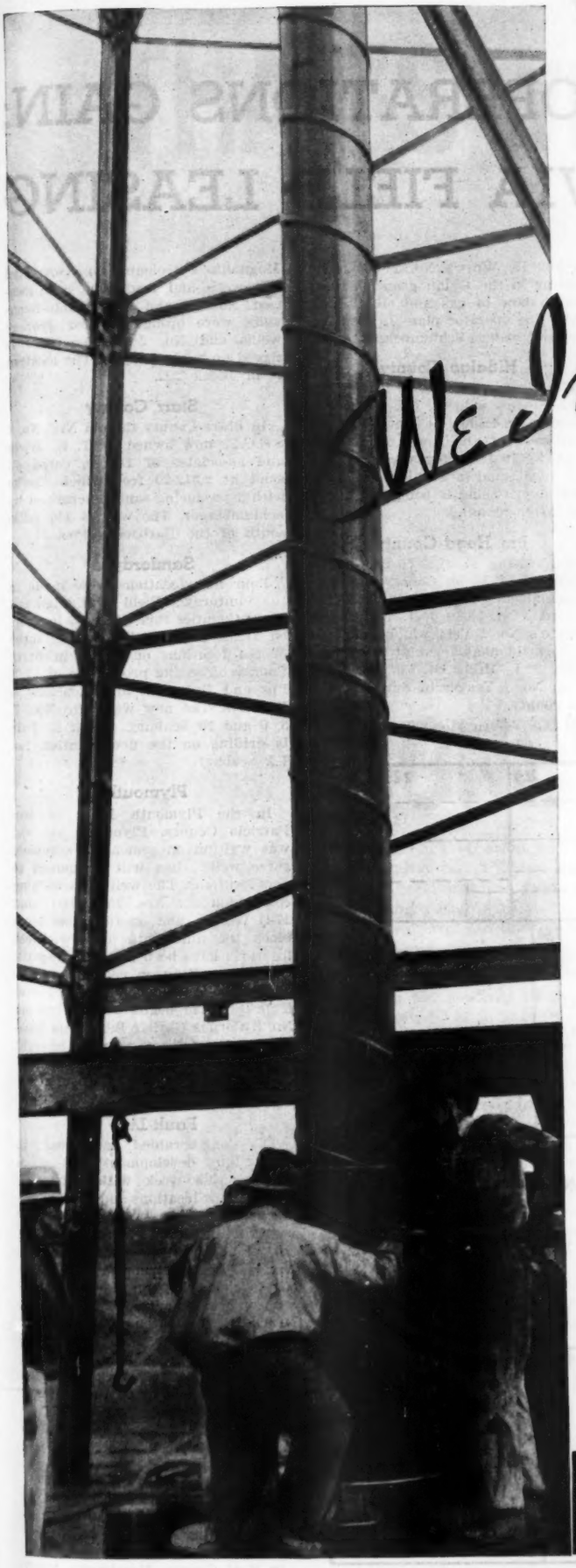
(Barrels of 42 gallons)

Grade of crude oil—	Sept. 21	Sept. 28
Pennsylvania Grade..	4,820,000	4,788,000
Other Appalachian.	915,000	903,000
Lima-N.E. Ind.-Mich.	1,428,000	1,488,000
Illinois-S.W. Indiana	11,367,000	11,374,000
N. La. and Ark. ...	10,599,000	10,735,000
W. Tex. and S.E. N. Mex.	30,257,000	29,868,000
East Texas	23,984,000	24,001,000
Other Mid-Cont. ..	136,697,000	135,659,000
Gulf Coast	25,209,000	25,100,000
Rocky Mountain ..	27,075,000	26,988,000
California	30,559,000	30,434,000
Domestic crude ..	302,910,000	301,338,000
Foreign crude ...	3,727,000	3,712,000
Total crude*	306,637,000	305,050,000

*Represents approximately 98 per cent of total stocks in the United States, exclusive of lease (producers') stocks.

Canadian Gasoline Sales

CHATHAM, Ontario, Oct. 12.—Sales of gasoline in Canada during June showed increases in Nova Scotia, New Brunswick, Ontario and Manitoba. In Saskatchewan, Alberta and British Columbia declines were recorded, while no figures were received from Quebec. Of the eight provinces reporting for July, all except Prince Edward Island showed increases for the six months of 1935 over the corresponding period last year.



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Naylor Casing is made in uniform 20, 25 and 30-foot lengths, or as otherwise specified, and in standard casing diameters of 13-3/8″ O. D., 16″ O. D., 18-5/8″ O. D., 20″ O. D. and 21-1/2″ O.D. AND—is interchangeable with A.P.I. Standard Casing.

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WILDCAT OPERATIONS GAIN; LOMA NOVIA FIELD LEASING

By
GEORGE WEBER

SAN ANTONIO, Tex., Oct. 14.—Wildcat operations in Southwest Texas saw an increase with resumption of drilling in some tests recently shut down by heavy rains. The new locations in wildcat territory exceeded abandonments. The Loma Novia Field in Duval County led as usual in the numbers of completions and drilling rigs, and the Fault Line commanded interest with a new wildcat location and the development of tests now under way. Attention in the Rio Grande Valley is directed mainly toward two wildcat tests showing for new production.

Duval County activity was shared by Loma Novia, Government Wells, Seven Sisters and Sarnosa, with wildcats making little progress. In Loma Novia, four new locations were announced and seven wells completed. The locations are offsets to wells completed this week; Magnolia Petroleum Co. is skidding over on No. 8 Hahl location in Survey 67; Duval Oil Corp. will transfer operations to No. 2 Hahl in Section 78; Bridwell Oil Co. has commenced drilling No. 5-B Hubbard located in Section 75, and Hamill, Smith and Ogden are drilling No. 23 Hubbard.

Hamill, Smith and Ogden completed one of their best producers in No. 10 Hubbard in Survey 77. The well made 32 bbls. per hour on a half-inch choke from sand at 2,613-27 feet. Casing pressure held to 375 pounds. Frank Gravis' No. 2 Flodin, in Survey 78, was brought in for an initial of 10 bbls. per hour on a three-eighths inch choke. Magnolia Petroleum Co. completed No. 7 Hahl in Survey 67 for 20 bbls. per hour on a half-inch choke at 2,657 feet. Bridwell Oil Co.'s No. 4-B Hubbard is jetting 75 to 100 bbls. from sand at 2,672-97 feet. Duval Oil Corp. completed a 25-bbl. well in Survey 78. Texas Co.'s No. 5 Hahl was completed into the pits for no gauge at 2,596-2,615 feet. Highland Oil Co. (Russ) completed a 75-bbl. well in Survey 72, and Shell Petroleum Corp. swabbed in No. 7 Hubbard in Survey 77 making 25 bbls. of pipe line oil in three hours.

Government Wells

Government Wells reported one location, one completion for production and one abandonment. The Sarnosa Field to the south had another completion by Seaport Oil Co. The company, after bringing in its No. 8-A D.C.R.C., moved to No. 16-A D.C.R.C. The 8-A well made 27 bbls. from sand at 2,348-2,405 feet.

Seven Sisters

The steady development of the Seven Sisters Pool in northern Duval County continued with one completion and other wells on the sand. Atlantic Oil Production Co. completed No. 3-A Welder for 28 bbls. per hour from the sand at 2,495-2,515½ feet. Buchanan Blanco's No. 1 Welder is drilling plugs at 2,467 feet, and Dulce Oil Co. and Santa Clara Oil Co. are coring the sand. This pool has been the scene of systematic development for several weeks with many good producing wells.

Magnolia Petroleum Co. is building derrick for a wildcat on No. 1 D.C. R.C.-Sentz, in Survey 155. Texla Oil Corp.'s No. 1 Nueces Land & Livestock Co., was reported spudding on the wildcat location 4 miles west of Eagle Hill Field. In the Labbe Field, Stanolind's No. 1 Farmers Life was swabbed dry to 2,450 feet.

Webb County

In Webb County wildcats commanded operators' attention. The area north of Laredo was the site of another location, S.S.&B. Oil Co.'s No. 9 Lone Star, north of O. W. Killams' new wildcat location, No. 1 Ortiz. Magnolia Petroleum Co. announced location of No. 1 Garcia-Arriba, in Block 8, Albercas grant. Arthur H. Wray's No. 1 Stuempke, wildcat in the Galan grant, made a heavy show of gas and oil at 1,450 feet. The operator plans to core further and make a Schlumberger survey.

Hidalgo County

Rio Grande interest is directed to S. J. Sloan's wildcat, No. 1 Brock & Showers, in Hidalgo County, 12 miles northwest of the town of Mission. It shows 16 feet of gas sand and 23 feet of oil sand in a solid body below 4,600 feet. Casing is being set in the hole after reaming.

Jim Hogg County

Wildcatting in Jim Hogg County, southeast of Webb County had two abandonments, Miller & Pippen's No. 1 Yeager at 3,630 feet, and C. G. Rankin's No. 1 Vela which has been temporarily abandoned at a shallow depth. S. L. Miller Oil Co. is rigging up on No. 1 Yeager in Survey 20 in this county.

In the O'Hern Field, Webb County, Magnolia Petroleum Co. completed two wells and made one new location. Nos. 14 and 15 Brennan-Benavides were brought in for average wells, and No. 2 J. Benavides is rigged up ready to spud. The location is in Block 292.

Starr County

In Starr County the old Nix' No. 1 S.C.C.C., now owned by T. K. Irwin and associates of Dallas, cored oil sand at 2,312-20 feet which checks with a producing sand determined by Schlumberger. The well is 1½ miles south of the Barbacoas Pool.

Samfordyce

Four new locations were made in the Samfordyce Field of Hidalgo and Starr Counties this week, all in proven areas. Skelly Oil Co. made three of the locations on tracts in Starr County offsetting production of Phillips and Barnsdall and Henshaw & Rotherts. The new wells are Nos. 7, 8, 9 and 10 Seabury. Ralph E. Fair is drilling on the new location No. 1-A Seabury.

Plymouth

In the Plymouth Field of San Patricio County, Plymouth Oil Co. was waiting on cement to complete three wells. Rigs will be moved to new locations. The wells approaching completion are Nos. 15-C, 16-C and 17-C Welder, and on the same lease block the nineteenth and twentieth locations have been staked. Heep Oil Corp. is waiting on cement to complete No. 5-F Welder. Magnolia Petroleum Co. has begun rigging up on No. 3 Corpus Christi Bank, one location south of No. 2 recently brought in for a good well from a third, deeper sand. The new test is a south outpost.

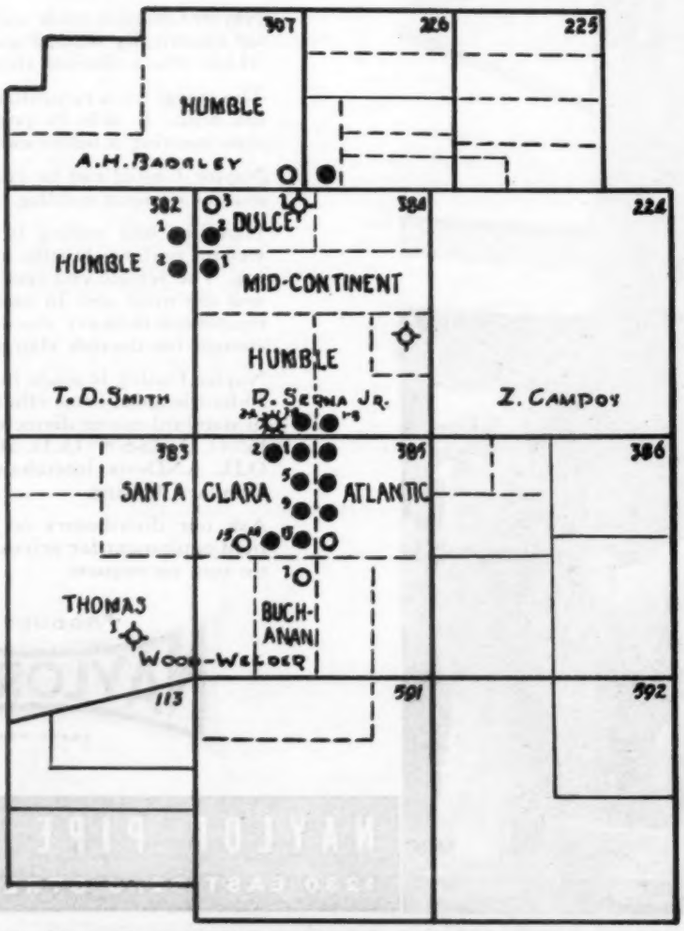
Fault Line

The long-heralded movement to Fault Line development was given impetus this week with announcement of new locations and good showings in tests now drilling. The first well will be R. C. Lee's No. 1 Atascosa Trust, 25 miles southwest of San Antonio. Bert Mowinkle's No. 1 Kotzur is rigging up on the Loungville Survey, 8 miles east of San Antonio. Mid-Tex Production Co.'s No. 1 Walker in Bexar County, 9 miles north of San Antonio, is drilling at 2,125 feet in a hard black formation believed by some to be the Pennsylvanian. It had a good showing of oil and gas at 2,100 feet, and was held up part of the week by a fishing job.

Bandera and Real

In Bandera County, Plateau Oil Co.'s No. 1 Garrison was last reported drilling at 4,348 feet after being held up by heavy rains.

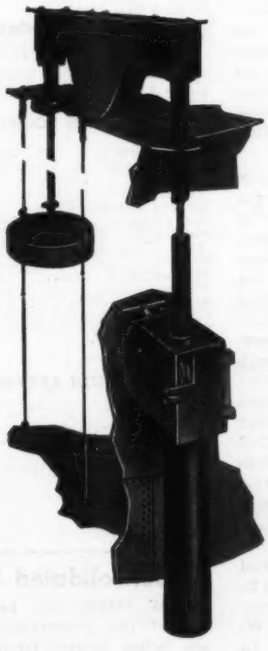
In Real County, Heartwell's No. 1 Perry was plugged and abandoned at 3,220 feet.



The Seven Sisters Field of northern Duval County, with 10 completions within five weeks and 5 rigs drilling

THAT'S WHERE YOUR

MONEY GOES



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North Louisiana, Arkansas

By J. R. CRUMPTON

TWO GOOD WELLS IN RODESSA AND GASSER WITH OIL SPRAY

SHREVEPORT, La., Oct. 14.—The Rodessa Field reported three completions during the week from lime of the Glen Rose horizon in the upper Trinity. Two were good oil wells and the third was completed as an immense gasser with only a light spray of oil. The field now has seven wells running the allowable of 1,000 bbls. per day into the lines and 14 active rigs and 17 locations or derricks. All of the drilling activity and new locations are centered around the completed wells as offsets with the exception of two tests drilling from one-half to three-quarters of a mile north of proven production.

Haynes Production Co.'s No. 1 Harry Otwell, Section 15-23-16, on a line between the first two producers, was finally completed as a good well. Plugged back to 6,800 feet from an original total depth of 6,081 feet, it is flowing 200 bbls. per hour through 1¾-inch choke. On first test from this depth it showed about 3 per cent salt water but has decreased to 1 per cent water and 1 per cent b.s. on steady flow. The top of the oil-bearing lime in this well was contacted at 5,981 feet and through drilling mistake it was bottomed at 6,081 feet showing 500 bbls. per hour and from 4 to 10 per cent salt water. It tested the same oil flow and some water when plugged back to 6,021 feet and was then plugged back to the present depth which still leaves 19 feet of saturated pay lime.

R. W. Norton's No. 1 Caddo Levee Board, 660 feet north and west of SE cor. of NE of Section 21-23-16, an offset to the north of No. 1 Young, the discovery well, on initial test flowed 120 bbls. per hour through one-half inch choke on casing and was pinched to 33 bbls. per hour through one-fourth inch choke on tubing. The total depth is 6,000 feet with 65 feet of oil-bearing lime contacted at 5,935 feet. There is no water show and the gas registered 2,000,000 feet.

Outpost Gas Well

Arkansas-Louisiana Gas Co.'s No. 1 J. S. Teamer, Section 13-23-16, an outpost well to the east of four producers north of the Rodessa townsite, proved to be too far on the up-dip and was completed as a gasser. The open initial flow gauged 92,200,000 feet of highly saturated gas with 2,455 pounds rock pressure from 6,165 feet. The completion, although failing as an oil producer, has added strength to the belief that the field will extend northeast for quite a distance on the down-dip away from the fault line and the gas area. The present test had a light spray of oil and contacted the upper gas horizons, the well blowing out with a flow of 45,000,000 feet of gas from 5,669 feet.

United Gas Public Service Co.'s No. 1 William Bremer, Section 22-23-16, offset to the east of the discovery, and completed last week, has proven on steady flow to be one of the best wells. It gauged after a week's flow 213 bbls. per hour through three-quarters inch choke from 6,008 feet and no show of water. United Gas Public Service Co.'s No. 1 Rodessa Oil & Land Co., Section 15-23-16, offset to the west of O'Brien Brothers completion, tested 70 bbls. per hour through one-half inch choke with 10 per cent salt water from 6,014 feet. The well has been killed and will be deepened through the pay lime into the shale below and will be plugged back to cut off water. Top of massive anhydrites was logged in the test at 5,310 feet, base at 5,620 feet and the first gas sand was contacted at 5,702 feet. Five and three-quarters inch casing was set above the saturated lime at 5,965 feet.

Pelican Oil & Gasoline Co.'s No. 1 Sexton, Section 14-23-16, is not yet a completed well. After testing 20,000,000 feet of gas and 30 bbls. of 52 gravity oil per hour from 6,068 feet, the hole has been deepened to 6,078 feet and is testing to gauge. Two outpost tests north are being closely watched and checked and will give some idea of the width of the field at this point. G. H. Vaughn Production Co.'s No. 1 T. M. Comegys, Section 10-23-16, three-quarters of a mile north of production, logged top of chalk rock at 2,000 feet, base at 2,473 feet and is drilling at 4,284 feet. The same company's No. 1 Hunter-Derryberry, Section 14-23-16, one-half mile north of Haynes Production Co.'s No. 1 Lawton, is drilling at 3,618 feet. Six other tests in Rodessa should be completed within the next 10 days, having contacted the pay horizon.

The major sale and transfer of leases in the Rodessa area since oil was discovered was consummated during the week and will result in an extensive drilling campaign by the purchaser. Bert Kouns, independent operator of Shreveport, and D. L. Perkins, discovering geologist of the field, assigned between 600 and 700 acres of leases to the Phillips Petroleum Co. Consideration was $325,000, an overriding royalty interest and the immediate drilling of a well on the tract. It is reported the first test by this company will be on the T. J. Wilbanks tract in Section 7-23-15, about 2½ miles northeast of present production.

Cass County

Operations in Cass County are expected to get under way along the Rodessa trend. Superior Oil Co. of California is reported to have purchased approximately 500 acres of leases 7 miles west of production. Probably the first test in Cass County to spud for the Glen Rose pay will be American Liberty Oil Co., reported moving in materials on No. 1 Rogers in the C. M. Robinson Survey. In Harrison County, L. L. Blomgren and others' No. 1 Taylor, Payne Survey, 14 miles northeast of Marshall, is bailing to test after plugging back the second time. Total depth is now 5,735 feet.

Only one North Louisiana wildcat developed any show of interest during the week. American Liberty Oil Co.'s No. 1 Golson, Section 25-17-1e, in the southeastern part of Ouachita Parish, is arranging to set a string of 5-inch casing at 5,200 feet to test a show of oil and gas. The hole is bottomed at 5,360 feet in lime.

Seven completions were reported in addition to those in Rodessa, three small pumpers, two in the old Caddo Field and one in Converse, Sabine Parish. Two gas wells of small gauge were completed in Ouachita Parish. A shallow test northwest of the Bellevue Field, Bossier Parish, was dry and abandoned at 815 feet, and a test in De Soto Parish, shut down for over a year, failed to make a commercial well after testing a good show of gas with salt water, and was abandoned.

ARKANSAS

McCall & Kelly's No. 1 Ray Owen, Section 26-10-16, Dallas County, is reported, but not confirmed at this writing, to have encountered saturated sand in the Nacatoch at 1,244 feet. The test was cored deeper and continued to show saturated cores, and casing will be set for further testing.

No other wildcats in this district were on test and drilling depths follow: Arkansas County, Arkansas Oil Co.'s No. 2 Fischer, Section 6-6-4w, temporarily abandoned at 1,628 feet; Ashley County, Benedum & Trees' No. 1 Holmes, Section 4-17-5, drilling shale at 2,700 feet, and Texas Seaboard Oil Co.'s No. 1 Bynum Cooperage Co., Section 34-17s-4w, set 7-inch at 652 feet and drilling at 1,800 feet; Columbia County, Southern States Gas Co.'s No. 1 Piney Woods Lumber Co., Section 10-20-22, drilling at 1,565 feet; Lafayette County, Joe Modisette's No. 1 Red River Lumber Co., Section 21-19-24, a potential deep test, drilling shale at 2,755 feet; Transportation Petroleum Co.'s No. 1 Cockran, Section 26-19-25, topped Blossom at 2,820 feet and is coring in water sand at 2,840 feet; Miller County, King Oil Corp.'s No. 1 G. W. Crank, Section 19-16-25, drilling in hard shale at 2,375 feet; Ouachita County, Benedum & Trees' No. 1 H. Brighton, Section 29-14-19, a deep test, set 12½-inch at 283 feet and drilling at 900 feet; Snow Black Petroleum Co.'s No. 1 Bedford, Section 32-11-18, is fishing for 1,800 feet of drill stem and bit with the hole bottomed at 1,938 feet; Poinsett County, Rockwell Development Co.'s No. 1 W. A. Smith, Section 13-11n-3e, drilling in sand at 2,273 feet; Sevier County, Pendleton & Vaughn's No. 1 Dierke, Section 14-10-29, is setting up spudding rig in place of rotary.

The two completions reported were both failures. In Miller County, Two-forty Oil Co.'s No. 2 Beck, Section 33-15-26, was dry and abandoned at 2,945 feet, and in the Urbana area of Union County, Marine Oil Co.'s No. 8-E Thompson, Section 3-18-13, salt water and abandoned at 3,592 feet. Two new locations were staked in the Miller County Field area.

East Texas Border

In Panola County, East Texas, Harry Flinchbaugh and J. E. McAneny's No. 1 M. J. McConnell, which is near the Rusk County line, is reported to have cored 10 feet of oil-saturated sand from 2,664-74 feet. The well, on a block of 4,000 acres, logged the base of Pecan Gap at 2,433 feet. Elevation is 381 feet and subsea bottom checks considerably higher than a previous test in that area. Another test in Panola, southeast of DeBerry, J. F. Cadrin's No. 1 Robert Johnson, James Johnson Survey, is waiting on casing to test a show of oil reported from a total depth of 1,983 feet.

Daily Production

Estimated daily gross production all companies for week ending October 4, 1935:

NORTH LOUISIANA

Bellevue	560
Caddo Light	4,355
Caddo Heavy	2,315
Converse	1,140
Cotton Valley	490
De Soto and Red River	1,385
Elm Grove	295
Haynesville	3,430
Holly	170
Homer	2,640
Pleasant Hill	170
Rodessa	6,510
Sarepta-Carterville	485
Urania	2,860
Zwolle	1,500
Total	28,305

SOUTH ARKANSAS

Champagnolle	2,060
ElDorado	2,245
Lisbon	310
Miller County	1,530
Nevada	860
Smackover Light	2,280
Smackover Heavy	17,800
Stephens	625
Urbana	2,375
Total	30,085

Consolidated Moves

NEW YORK, Oct. 14.—Headquarters of the Consolidated Oil Corp. are being moved from 45 Nassau Street where they have been many years to 630 Fifth Avenue. The company which has approximately 1,000 employes at the New York headquarters has taken a long time lease of several floors in the new International Building which is part of Radio City. The latter organization acquired the Sinclair Building at 45 Nassau in connection with the new lease.

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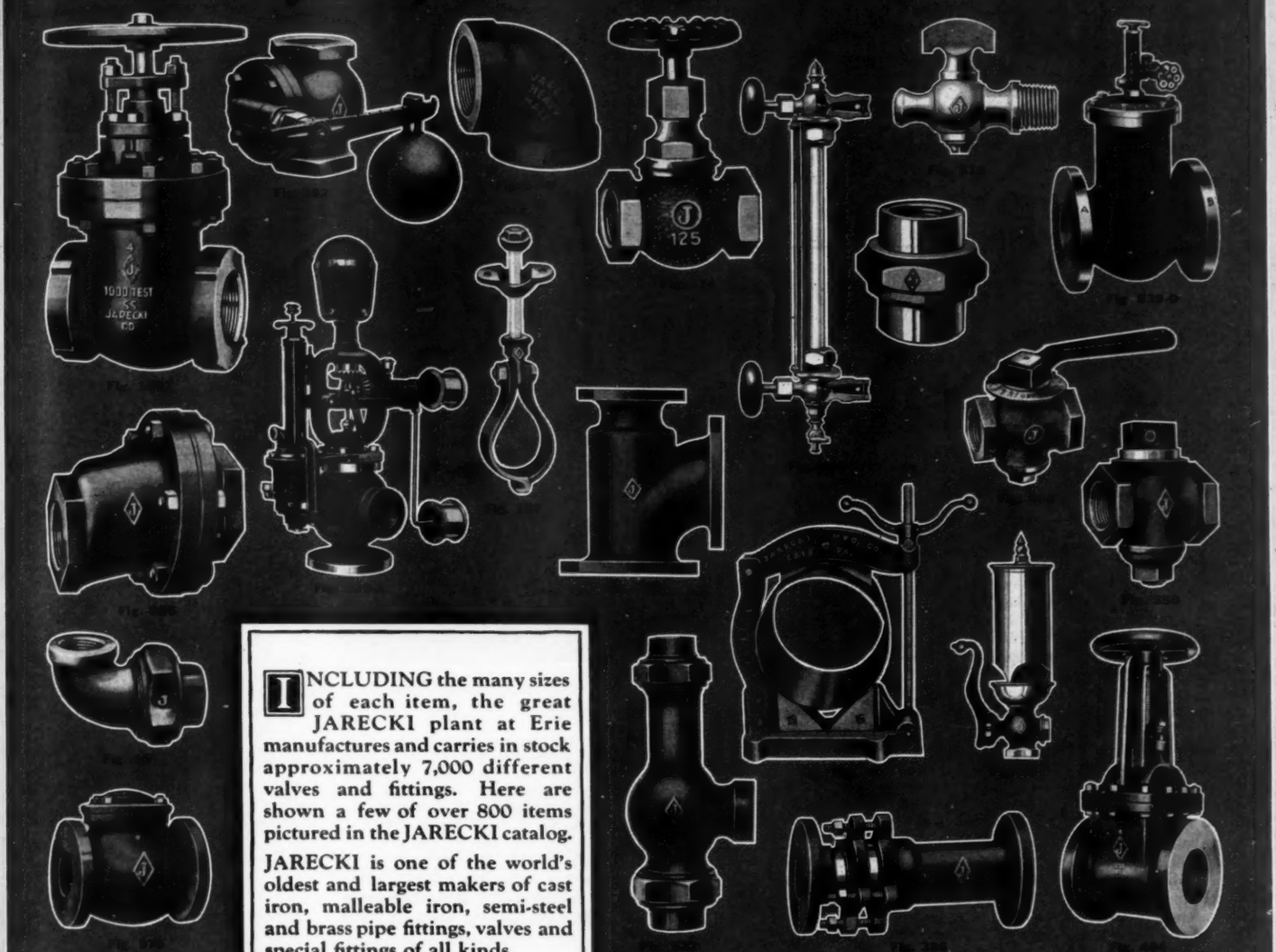

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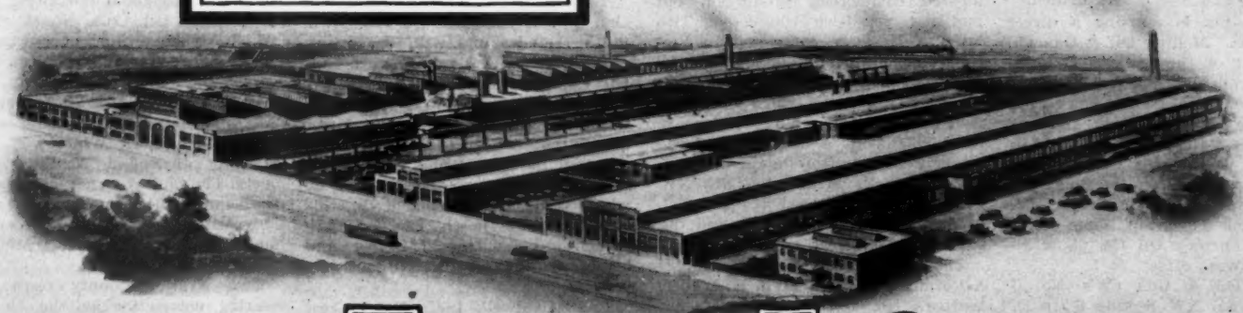

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Michigan Field Report

NEW OGEMAW COUNTY PLAY POSSIBILITY AFTER BIG WELL

By
PAUL A. ELLIOTT

MUSKEGON, Mich., Oct. 14.—While daily production in Michigan again exceeded 53,000 bbls. last week, operators speculated on the possibility of a new major play in Ogemaw County where Fortney Oil Co.'s extension producer on a state lease in Horton Township had poured more than 50,000 bbls. into field storage tanks, tank trucks and new pipe lines in about two weeks. In addition, the well, about 50 miles north of the Mount Pleasant area, was estimated to have lost 25,000 bbls. when it flowed wild from an unexpected strike in the lower Traverse before the surprised operators succeeded in getting it shut in.

More than half a dozen new tests are projected in the vicinity, now conceded a daily potential of 10,000 to 15,000 bbls., one of the largest wells in the state. Permits have been issued for five new tests in Mills Township, adjoining. Rigs were being moved in or erected on several.

Total tankage of 16,000 bbls. had been erected and most of it filled. Naph-Sol Refining Co. of Muskegon, completed a 3-inch line to its loading rack east of West Branch. Naph-Sol also is running crude from the gusher to its pumping station in Mills Township through a 2-inch emergency extension line and thence through a main 3-inch line from Mills Township.

Simrall Pipe Line Co., of Mount Pleasant, also completed a new 4-inch line from West Branch and started service expected to meet the well's immediate requirements with the Naph-Sol outlets.

After being allowed to produce about 300 bbls. an hour for several days under heavy back pressure, the well was pinched to 90 bbls. an hour but threatened to burst control.

Fortney Oil Co. subleased the 160-acre state tract from Shell Petroleum Corp which has an overriding interest in this and any others drilled.

Sun Oil Co. is starting a direct south offset. Melling Oil & Gas Co. is offsetting on the east. T. F. Caldwell has made location for two tests to the north. H. C. Nelson has rigged up for two locations north and one east on his state lease in Churchill Township. Weber Oil Co. proposes to drill three tests on its Boing estate and state leases in Section 36, West Branch Township, same vicinity, while Fortney Oil Co. plans an immediate west offset.

Melling Oil & Gas Co.'s No. 5 State, SW SE NW Section 6-21n-3e, Mills Township, southeast of the big well, is being closely watched. It is drilling at more than 1,200 feet.

John C. Newell has plugged and abandoned his No. 1 Tolfree and others, SW NW SW Section 5, Mills Township, and will move in near the big well. The test was plugged at 1,300 feet after formations were revealed running low.

Weber Oil Co. was completing its No. 1 Stella Wilcox, NE NE NE Section 34-22n-2e, West Branch Township, with prospects of a small Dundee producer after deepening to 2,682 feet. Two other Ogemaw tests were preparing to drill into the Dundee after cementing casing: Louis Dery and O. S. Fowler's No. 1 Wo-

Storage tanks for Fortney Oil Co.'s No. 1 State, Horton Township, Ogemaw County, Michigan, extension producer

big heirs, NW NW NE Section 6, Mills Township, and Capitol Oil & Gas Co.'s No. 1 Country Club, SW SW SW Section 20, West Branch Township.

Crystal Area

More than 4,000 bbls. of new initial was added by completion of three Dundee producers in Crystal Township, Montcalm County, last week while two tests in the same township, one the first in Section 4, indicated commercial production but had not yet been completed. Two large wells were completed in Section 3, each making about 70 bbls. an hour pinched in, or more than 1,500 bbls. a day. A third Section 3 well made 50 bbls. an hour, or more than 1,000 bbls. a day. One of the larger wells was Gordon Oil Co.'s No. 2 William E. Strait, SE SE NW Section 3-10n-5w, cased at 3,161 feet, in the Dundee at 3,172 feet and the pay at 3,183-85 feet.

The other was Michigan Producers & Refiners, Inc. and Alvin H. Weber, trustee's No. 2 William Strait, NE NE SW Section 3, which topped the Dundee at 3,178 feet and found pay from 3,190-93 feet. It was producing against 325 pounds back pressure.

Rowmor Corp.'s No. 1 John and David Husted, SW NE SW Section 2, same township, topped the Dundee at 3,171 feet and filled up several hundred feet at 3,198 feet.

First production in Section 4, Crystal Township, was indicated when McClanahan Oil Co.'s No. 1 Edward McCracken, NW NE SE Section 4, filled up 2,000 feet with oil in the Dundee topped at 3,197 feet and drilled to 3,215 feet. J. W. Leonard, trustee's No. 1 J. Tow, SE NE SE Section 3, made 50 bbls. an hour pinched in after reaching the Dundee at 3,162 feet and the pay from 3,171-75 feet. Three other Crystal Township tests were nearing the Dundee including J. W. Leonard, Jr., trustee's No. 3 Mrs. Ida M. Husted, SE SW SW Section 2; Daily Crude Oil Co.'s No. 3 J. Tow, NW NW SW Section 2, and the Stork Oil Co.'s No. 6 G. Dickenson, SW NW SE Section 3. Daily's No. 3 Tow cased at 3,160 feet.

Ferris-Montcalm

Two northwest extension tests of the Crystal area were unsuccessful in the Dundee and will be plugged. Most disappointing was Eastern Gulf Oil Co.'s No. 1 A. C. Conner, NW NW NW Section 35-11n-5w, which was being watched for possible direct connection between the main producing area in Crystal and United Producers Conner well in Section 26 which started development in this direction to the north. The Gulf-Conner was cased at 3,211 feet and drilled below 3,250 feet without success.

T. F. Caldwell, Inc.'s No. 1 Cora J. and Jay Bailey, NE NW SW Section 33, same township, had been drilled to about 3,350 feet and into a shale below a thin layer of Dundee lime without success. It is west of the Isabella-Strait well and will be abandoned. Two other offsets to United-Conner, a 1,000-bbl. initial well at the unexpectedly low depth of 3,240 feet, also were nearing completion. They are Shell Petroleum Corp.'s No. 1 E. Bogert, NE NW SW Section 26, a south offset, and Morris-Barnes Oil & Gas Syndicate's No. 2 Pugsley, SW NE SW Section 26. Warren Oil Co.'s No. 1 Warren estate, SW SE NW Section 26, an east offset, will be completed within a week or 10 days.

Six other Ferris Township tests were nearing completion in the Dundee including: T. F. Caldwell, Inc.'s No. 1 Delos A. Towle, SE NW SW Section 34; same operator's No. 3 Jesse Flint, NW SW SW Section 35, and No. 4 Jesse Flint, NE SE SW Section 35; Burnstein Oil & Gas Corp.'s No. 3 J. J. Keel, SW NE SE Section 35; Burnstein's No. 5 Keel, SE SE SE, same section, and Dougherty & Markey, Inc.'s No. 1 H. Fisher, SW SW SW Section 36.

Other Montcalm Tests

Two shows of oil and gas in the Traverse were reported when No. 1 C. N. Long, SW NW SE Section 1-9n-6w, Bushnell Township wildcat, was drilled into the upper limestone formation by Jetter Oil Co. and Lima Oil Corp. One was encountered at 2,728 feet, or 63 feet in the Traverse topped at 2,665 feet and the other was reported at 2,778 feet. The well had continued drilling and was below 2,800 feet. Rex Oil & Gas Co. was still testing its No. 1 Sanford Newland, NW NW NW Section 2-12n-8w, a Cato Township, Montcalm County wildcat, which made several barrels daily in the upper Traverse. It showed gas, oil and water at 3,063 feet in the Dundee after passing up the Traverse.

Gratiot County

A flow of more than 3,000,000 feet of gas was encountered in No. 1 J. D. White well, SE SE Section 33-11n-4w, Sumner Township, Gratiot County, a diagonal northwest offset to Crystal Oil Co.'s No. 1 Shaver which struck a flow of upwards of 10,000,000 feet in the Michigan Stray sands but was unsuccessful when deepened to the Dundee for oil and was plugged. Gas was first struck at 964 feet in the White well by V. H. Arbaugh and J. A. Ellis, developers. The Shaver struck gas at about the same depth. The new well probably will be kept for a gasser and may open another central Michigan natural gas area.

Two Gratiot County tests were nearing completion in the Dundee. St. Louis Pipe & Supply Co.'s No. 1 Northwestern Mutual Life Insurance Co. test, NE NE SW Section 25-12n-4w, Seville Township, cased at 3,299 feet and was ready to drill in. Same company's No. 1 John Longanbach, SE NE SE Section 10-12n-2w, Bethany Township, was drilling at more than 3,200 feet and nearing casing point. Jackson-Meyer-Schmidt, Trus-

tee's No. 1 Newton Garner, NE NE SE Section 10-9n-4w, North Shade Township, also had reached a depth of more than 2,800 feet and was in the Traverse with completion possible this week.

Mecosta County

Three gassers added more than 16,000,000 feet a day to the rapidly increasing potential of the Millbrook Township, Mecosta County gas field, which now has an aggregate open flow of nearly 200,000,000 feet and is one of three leading Central Michigan gas fields. Largest of the new wells is Gordon Oil Co.'s No. 1 Glenna Withey, C SE SE Section 33-13n-7w, which gauged 7,000,000 feet. Fletcher & Leman's No. 1 E. P. Taylor, C NE SE Section 30, same township, made 6,500,000 feet a day in the Michigan Stray sands at 1,318 feet after topping the shallow formation at 1,300 feet.

The third well rated at 3,000,000 feet was brought in as the first test on the Fred A. Winslow lease, C NE NE Section 30, Millbrook, by the Ide & Glavin No. 1 Gas Co.

H. O. Andrews and others' No. 1 Jesse Moore, C NE SW Section 14-15n-7w, Sheridan Township, Mecosta County, was abandoned as a location.

Midland—Isabella

No completions were recorded in Midland or Isabella Counties, but six were nearing the Dundee and two were expected to be drilled into the Michigan Stray sands this week for possible gassers.

Wildcats

A wildcat in Bay County, which struck a 10 to 15-bbl. show in the upper Traverse about two weeks ago, is drilling to the Dundee. It is M. C. Fordyce's No. 1 Mike Susko, SE SE NE Section 11-18n-3e, Gibson Township, which topped the upper lime at 2,036 feet with the promising show. It is now more than 2,400 feet. It will be plugged back and treated if unsuccessful in the Dundee.

Two wildcat tests in central and north central Michigan, the former of which struck a flow of about 8,000,000 feet of gas in the Michigan Stray sands but was carried to failure in the Dundee, were plugged and abandoned as failures.

L. G. Thompson's No. 1 J. K. Knapp, E SE NE Section 17-12n-10w, Winfield Township, Montcalm County, had a big flow of gas and was plugged back but failed to recover the gas. It was heralded as the discovery well of a new gas area in central Michigan when the big flow was encountered. Durham & Jones' No. 1 Mary E. Eggleston, NW NW SW Section 9-21n-2w, Nester Township, Roscommon County, was plugged and abandoned because of an impossible fishing job at 1,753 feet.

New Locations

Ogemaw County led with eight of the 20 permits issued for new locations, October 2 to 9. Five of the Ogemaw locations were in Mills Township near the new producer. Montcalm and Mecosta Counties divided second honors with five locations each, including four in Crystal and one in Ferris Township, Montcalm County, and four in Millbrook and one in Wheatland Township, for Mecosta County gas tests. Two permits were for wildcats in Orleans Township, Ionia County, and Hawes Township, Alcona County.

Canadian Fields

Completions and Operations in Northwest and in Ontario

By VICTOR LAURISTON

CHATHAM, Ontario, Oct. 12.—In Section 28-18-2w5, South Turner Valley, two tests on the west side of the structure are nearing completion. British Dominion Oil & Development Corp.'s No. 4, LSD 6, is deepening in the Madison limestone from 6,090 feet. It is more than 252 feet in the lime and had a flow between 7,000,000 and 8,000,000 feet a day with a heavy naphtha content.

Farther south, Renfrew Royalties' No. 1 Morris & Goodfellow, LSD 3, got the Madison lime at 6,005 feet and is setting casing at 6,020 feet. The lime contact was 167 feet lower in the Renfrew well than in British Dominion's No. 4.

South and east in Section 21-18-2w5, Union-Freehold Oil Corp.'s No. 1, LSD 8, is sidetracking in top of the lime at 5,610 feet. In the southeast corner of the same section, Highwood-Sarcee Oils' No. 2, LSD 1, has derrick up.

In the North Turner Valley Field, Model Oils' No. 3, LSD 1, Section 22-20-3w5, has passed through the Home sand and is entering the crooked hole sand at 5,300 feet, drilling open hole and logging about 60 feet lower than Model's No. 1 crude producer. It will likely get the lime contact this month. Royalite Oil Co.'s No. 27, LSD 4, Section 23-20-3w5, is rigged ready to spud.

West of Model's No. 3, Phillips Royalties' No. 1, LSD 16, Section 16-20-3w5, is at 2,370 feet. Location is apparently on a subsidiary fold paralleling the North Turner Valley structure to the west, but the Phillips test is logging closely with the main structure.

Tests in the Foothills

In the Forest Reserve area west of Olds, Hunter Valley Oil Co.'s No. 1 McLaren, LSD 12, Section 13-31-10w5, is below 5,167 feet.

On the Moose Dome, west of Calgary, Moose Oils' No. 2, LSD 8, Section 29-22-6w5, is below 234 feet and making considerable sulphur gas from the Madison limestone.

East of Turner Valley, McLeod Oil Co.'s No. 1 New Valley, LSD 4, Section 6-21-2w5, is below 3,055 feet. Farther south, Ranchmen's Gas & Oil Co.'s No. 1, LSD 16, Section 13-20-28w4, on the Aldersyde structure is below 6,508 feet with some oil and gas. It is the deepest test in Alberta outside the Turner Valley Field, though geologically still in the newer Turner Valley formations.

On the Highwood-Sinclair structure, south of Turner Valley, Maple Leaf Royalties' No. 1 Banner, LSD 6, Section 34-17-3w5, is below 2,420 feet in a very hard formation of the lower Blairmore, with considerable sweet gas and traces of oil.

On the Watson structure north and west of Lundbreck, Mar Jon Oil Co.'s No. 3, LSD 3, Section 4-10-2w5, is deepening below 3,270 feet after cementing casing. It got further traces of oil in the upper Blairmore at 3,190 feet, though not in commercial quantities.

In the Pincher Creek area, Weymarn Petroleums, Ltd. is letting contract for completion of Weymarn's No. 2, LSD 5, Section 7-6-1w5, at Mountain Mill, 10 miles west of Pincher Creek. It has been standing for several years at 3,900 feet. Sweet gas was met in the upper horizons but some sulfur gas at the bottom of the hole which is believed close to the Madison lime contact.

Border Fields

On the Del Bonita structure, Terminal Oil Co.'s No. 1, NE Section 18-1-21w4, is deepening from 4,895 feet. A show of oil was reported at the contact.

Alberta operators are interested in the north extension of the Cut Bank Field in Montana indicated by the Montana Power Hall test 12 miles south of the boundary, which is reported to have swabbed 250 bbls. in 16 hours from a sand between 3,015 and 3,050 feet.

Turner Valley Producers

Alberta fields in August produced 102,741 bbls. of crude, against 102,183 bbls. in July. Turner Valley in August produced 99,236 bbls. Royalite Oil Co. had 48,204 bbls. This figure is a new high in recent months, due largely to the operation of the second absorption plant. The Mercury-Miracle group, with the Gas & Oil Products absorption plant, ranked second with 11,230 bbls., and Model Oils third with 5,128 bbls. Century Royalties' No. 1 produced 5,123 bbls. being the largest individual producer, and Highwood-Sarcee Oils' No. 1 had 4,286 bbls. Among the newer wells, Pacalta Oils' No. 1 produced 1,600 bbls.; Publix Oil & Gas Co.'s No. 1 made 546 bbls. and Renfrew Royalties' No. 1 bailed 166 bbls. while drilling.

In the Red Coulee Field, Vanalta, Ltd. accounted for 1,077 bbls. of the 1,794 bbls. produced. In the Wainwright Field the 1,711 bbls. of heavy crude came from six producing units, the largest, Hargal Oils, Ltd. accounting for 458 bbls.

British Columbia

In southeastern British Columbia, Columbia Oils' No. 1 in the Sage Creek area is below 4,724 feet in a badly broken formation, with continued oil and gas shows.

Hudson Bay Junction

In the Hudson Bay Junction area, northern Saskatchewan, Trail Blazer Oil & Gas Co.'s No. 1, Section 31-44-3w2, is shut down at 1,085 feet in the Silurian formation. Last fall it got a show of oil in a sand in the Devonian limestone at 590 to 600 feet. The oil was heavy, resembling cup-grease. This year it was deepened to 1,085 feet without any additional production.

Amalgamated Gas & Oil Co. has drilled seven wells for geological information in Township 42-4w2, at Kakwa, 25 miles south of Hudson Bay Junction. Four are commercial gas wells, three getting gas at 277 feet and another at 206 feet. It is not thought there is any oil in the immediate area.

Senator Oil & Gas Development Co. of Ottawa will spud a test this fall in Section 16-45-3w2, a half mile north of the town of Hudson Bay Junction.

Dominion Oil Royalties of Yorkton, Saskatchewan, will spud a test this month in Section 34-39-5w2, on a new structure worked out by Geologist W. B. Fry.

Drilling in Ontario

In the Dover Field, Kent County, Ontario, E. P. Rowe's No. 1 Bruette farm, Lot 5, Front Concession, Raleigh Township, got a show of oil in the Trenton limestone at about 3,269 feet with a little gas. The oil bailed about 50 bbls. It was given a shot, which failed to increase production. The Rowe interests are reported planning to drill additional tests on the Raleigh side of the River Thames.

About 4 miles east of production Massey Syndicate of Detroit is spudding No. 1 on the Cook farm, Lot 12, Concession 2, Dover East Township, after blocking extensive acreage east of the proven field. It is a mile or more south and east of a test drilled same years ago by the Bowman Syndicate which got shows of oil and gas in the top of the Trenton limestone.

In Norfolk County, Empire Natural Gas, Ltd. is starting two tests on acreage in South Walsingham Township.

Canadian Production

The production of crude petroleum from Canadian fields in July declined to 118,812 bbls. compared with 120,119 bbls. in June and 122,067 bbls. in July, 1935. For the seven months of 1935 production totaled 833,153 bbls. compared with 839,595 bbls. in the same period of 1934, a decline of 0.8 per cent.

Petroleum Imports

CHATHAM, Ontario, Oct. 12.—Petroleum, asphalt and their products imported into Canada in July were recorded at $4,874,685, a decline of 0.9 per cent from the June total of $4,919,718. The main sources of supply, with percentages, were: United States, 79.7; Colombia, 7.1; Peru, 6.6; Venezuela, 3.9.

Crude petroleum imports in July totaled 133,650,600 gallons valued at $3,849,401 compared with 131,873,166 gallons worth $3,916,053 in June. Sources of July imports, with gallonage, were: United States, 100,433,961; Colombia, 12,096,873; Venezuela, 10,969,206; Peru, 5,766,649; Dutch West Indies, 3,434,394; Ecuador, 949,517.

Exports of petroleum and its products from Canada in July were valued at $130,003 compared with $38,034 in June.

Gulf Purchases Stations

Gulf Refining Co. has purchased 13 retail filling stations of Hygrade Oil Co. in and near Hartford, Conn.

Oklahoma Operations

By JAMES McINTYRE

13,000-BBL. WELL IN EDMOND; OIL SHOWINGS IN WILDCATS

A well that awoke more than ordinary interest in the fore part of this calendar week was Helmerich & Payne's No. 1 Crouse, C NE SW Section 29-25-8w, in western Grant County. It was dry in both Wilcox sands, topped at 6,615 feet and 6,648 feet, total depth 6,684 feet and the crew shot off the pipe and was pulling it when the well began flowing mud, water and some oil at a depth of 4,443 feet. The fluid may be coming from Tonkawa sand.

A showing of oil in Sinclair Prairie Oil Co.'s Love County deep test in southern Oklahoma was another important item in field work. The well is No. 1 Stockton, SE SE SW Section 26-6s-2w, which started out as a 5,000-foot test, but which was carried deeper when nothing had been found down to the originally planned bottom. At 5,817-24 feet a core was taken, and there was a showing of oil and brown shale in a core at 5,824-31 feet. Schlumberger test was indicated, to be followed by a Halliburton test.

The Continental Oil Co.'s No. 1 McCarty, C SE NW Section 12-1-7, a Pontotoc County wildcat, found Second sand at 4,312 feet, a trace of oil at 4,330 feet, and 10,000,000 feet of gas at 4,421 feet. It had reached a total depth of 4,446 feet.

The completion of British American Oil Co.'s extension well in the Oklahoma City Field, three and one-half blocks west of the State Capitol, was delayed by a fishing job. A swab was lost in the hole.

The largest completion of the week was a well in the Edmond Pool that earned a potential of 13,296 bbls. on the strength of its four-hour flow.

In the Fitts Pool

Only three completions were reported in the Fitts Pool, and the most interesting wells in the field were the near completions.

Skelly Oil Co. completed No. 1 G. Smith, NE cor. Section 35-2-6, which flowed 1,376 bbls. the first hour through casing with gas at the rate of 7,000,000 feet per day, and then flowed 236 bbls. the second hour through tubing. It was given a potential rating of 4,312.20 bbls. of oil and 2,202,000 feet of gas. It produces from Bromide and McLish sands, total depth 4,487 feet.

Moore and others' No. 4 Schauers, SE SW NW Section 29-2-7, deepened from 4,207 to 4,332 feet, with McLish pay at 4,190-4,332 feet, was given a 4,000-gallon acid treatment and its short-time flow gave it a new potential of 4,264 bbls. of oil per day.

Moore and others' No. 5 Wirick, SW SW SE Section 29-2-7, deepened from 4,044 feet to 4,207 feet, in McLish sand, was given a new potential of 4,377 bbls. It produces from Bromide and McLish sands.

New work includes J. E. Crosbie, Inc., and others' No. 1-A Burris, 330 feet west and 915 feet north of C Section 27-2-7, cellar and pits; Fleetborn Oil Co. and Simpson, NW NW SE Section 28-2-7, rig on ground; Magnolia Petroleum Co.'s No. 1 Lea, NW SE SW Section 28-2-7, location; Magnolia Petroleum Co.'s No. 1 Smith, SE SE NW Section 28-2-7, rig on the ground. Skelly Oil Co.'s No. 1, Park College, SW SW NE Section 28-2-7, cellar and pits; Stahl Petroleum Co.'s No. 1 Dennis, SW NE NW Section 28-2-7, location; Moore and others' No. 4 Craddock, SW SW SW Section 29-2-7, rig up to deepen, now in McLish lime at 4,069 feet, total depth; Moore and others' No. 7 Schauers, SE SE NW Section 29-2-7, deepening from 4,285 feet, drilling at 4,309 feet; Moore and others' No. 6 Woodruff, SE NE SE Section 29-2-7, deepening from 4,108 feet, drilling at 4,110 feet; Moore and others' No. 1-A Wirick, SE cor. SW Section 29-2-7, cellar and pits; Moore and others' No. 1 Atkins, NW NW NW Section 32-2-7, moving in rotary to deepen from 4,050 feet; same operators' No. 2 Atkins, NE NW NW Section 32-2-7, rigging up Hydril to deepen from 4,035 feet.

Northern Pontotoc County

Mary F Oil Co. and others' No. 2 Robinson, C W half E half NW Section 22-5-8, Allen district, Pontotoc County, was dry and abandoned at 807 feet. Barren sand was found at 763-68 feet.

Near Completions

Delaney and others have had cellar and pits dug for their test on the Jesse townsite in Pontotoc County. The location is Lot 8, Block 3, or 1,337 feet from north and 1,091 feet from east lines of SE quarter Section 2-1-7. It is a wildcat in the Fitts area.

Continental Oil Co.'s No. 1 McCarty, C SE NW Section 12-1-7, had McLish lime at 4,427 feet and drilled to 4,446 feet. The gas in the top of the McLish blew the tools up the hole, which bridged. The crew was working to kill the gas and a fishing job was on to recover the tools. This important test had not yet shown oil in the Bromide or McLish, but had an 8,500,000-foot gas production from both.

In the Fitts Pool proper, Bishop Oil Co.'s No. 1 Schaffer, SE NE NW Section 25-2-6, had Bromide at 4,353 feet and at 4,436 feet swabbed 99 bbls. in 24 hours.

Delaney and others' No. 3, 330 feet north and 95 feet west of SW cor. Section 25-2-6, in the southwestern part of the field, which had McLish at 4,336 feet, found a sand at 4,395-4,420 feet. It flowed 368 bbls. in 27 minutes and 268 bbls. in 15 minutes through casing, and 136 bbls. in one hour through tubing, total depth 4,425 feet.

Moore and others' No. 1 Norris Royalty, NW NE NE Section 36-2-6, had Bromide at 4,275 feet, sands at 4,360-95 feet and 4,420-40 feet, total depth. It flowed 221 bbls. in one hour at 4,430 feet and 199 bbls. the second hour, and flowed 226 bbls. the first hour and 157 bbls. the second hour through casing at 4,440 feet. About 3 per cent water showed up in the last hour.

J. E. Crosbie, Inc., and others' No. 1 Burris, NE SE NW Section 27-2-7, which showed 50,000,000 feet of gas at 1,748-57 feet, was plugged back and shot with elephant gun at various levels up to 1,270-90 feet, Atoka sand, where it gave another gas demonstration, showing 50,000,000 feet of gas. It was plugged back to 1,300 feet.

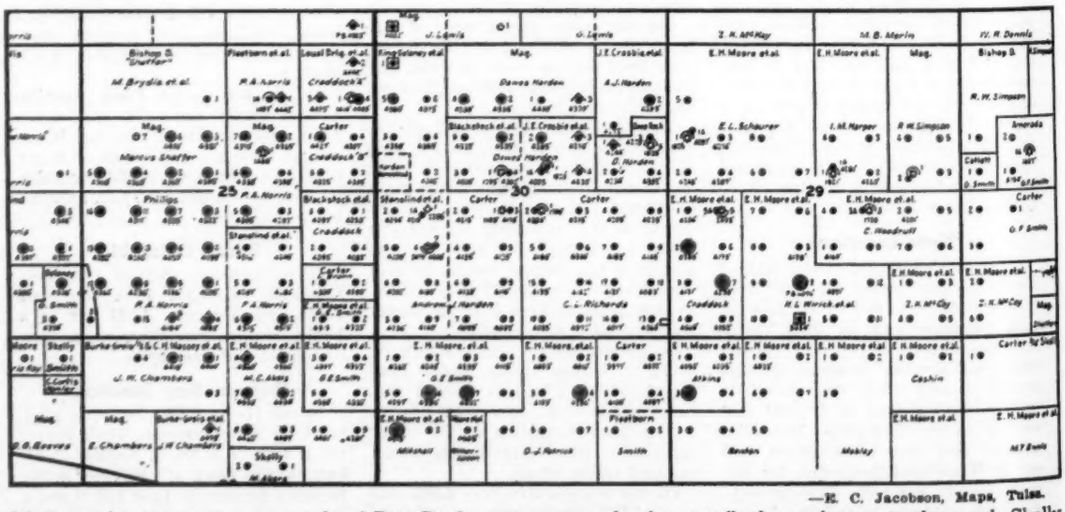
Amerada Petroleum Corp.'s No. 2 Smith, NE SW NW Section 28-2-7, an old well deepened from 4,187 feet to 4,321 feet. It was tested for potential and rated 4,134.21 bbls., cut with about 2.13 bbls. of salt water per hour.

Carter Oil Co.'s No. 2 G. F. Smith, NW NW SW Section 28-2-7, on the eastern edge of developments in the Fitts Field, flowed 1,091 bbls. in 51 minutes at a total depth of 4,320 feet. The well showed Bromide at 3,940 feet, sands at 4,040 and 4,105 feet and McLish at 4,155 feet. McLish sand at 4,190-4,205 feet showed oil, but the big pay is from the second McLish sand. No. 3 on the same lease, SW NW SW Section 28, got Bromide at 3,920 feet, sands at 4,040 and 4,090 feet, McLish at 4,195 feet. It showed 350 bbls. of oil in 20 minutes at a total depth of 4,450 feet and then started making 50 per cent salt water. It was plugged back to 4,250 feet and flowed 878 bbls. in 40 minutes through casing.

Moore and others' No. 4 Harper, NW SW NE Section 29-2-7, was at a total depth of 4,275 feet. It flowed 346 bbls. in one hour through casing and was then acidized. It flowed thereafter 1,539 bbls. in four hours through casing, but this was not a potential gauge.

Moore and others' No. 3 McKoy, NW SE SE Section 29-2-7, flowed salt water from McLish sand at 4,495 feet, 35 feet in the basal McLish sand. It began showing water at 4,480 feet, where it flowed 160 bbls. of water and 30 bbls. of oil in one hour. It flowed 144 bbls. in an hour from second Bromide sand at 4,127 feet.

Fleetborn Oil Co.'s No. 1 Smith,



—E. C. Jacobson, Maps, Tulsa.

Wells on leases in extreme ends of Fitts Pool were among the largest flush producers in the pool: Skelly Oil Co.'s No. 1 Smith, Section 35-2-6, and Carter Oil Co.'s No. 2 Smith, Section 28-2-7

NW SE NE Section 31-2-7, flowed 991 bbls. in 14 hours at a total depth of 4,363 feet, 8 feet in second Bromide sand. It had been given a 4,000-gallon acid treatment.

Oklahoma

Estimated daily average production of Oklahoma for the week ending October 12 and for the preceding week is as follows:

	Barrels	
	Oct. 12	Oct. 5
Allen	7,250	7,250
Asher-West Asher	1,100	1,100
Burbank	8,400	8,400
South Burbank	11,750	12,250
Balance Osage	24,500	24,500
Blackwell	4,775	4,775
Bristow-Slick	9,000	9,000
Chandler	4,600	4,500
Crescent	5,050	4,800
Cromwell	4,200	4,225
Cushing-Shamrock	12,750	13,000
Duncan district	4,600	4,600
Edmond	6,225	3,400
Fish	9,150	8,500
Fitts	27,950	19,950
Gray	1,725	1,700
Graham	4,350	4,300
Healdton	9,400	9,400
Hewitt	4,750	4,750
Holdenville	1,350	1,375
Keokuk	3,400	1,875
Konawa	1,725	1,725
Lucien	10,200	9,750
Marshall-Lovell	1,000	1,000
Oklahoma City	154,825	131,600
Papoose	1,225	1,200
Polo	3,450	3,200
Sasakwa and townsite	3,025	2,875
Sholem-Alechem	4,100	4,100
Seminole Field:		
Bowlegs	9,550	10,075
Carr City	5,875	3,150
Earlsboro	8,300	8,550
South Earlsboro	975	950
Little River	15,650	15,200
East Little River	900	825
Maud	1,050	1,100
Mission	2,900	3,000
Seminole	12,175	10,900
East Seminole	1,275	1,200
Searight	3,225	4,275
Total Seminole	61,875	59,225
St. Louis-Pearson	23,125	22,950
Tatums	4,600	4,550
Tonkawa-Garber-Thomas	5,825	5,800
Wewoka	3,600	3,450
Yale-Jennings	4,400	4,400
Other pools	67,375	65,975
Total Oklahoma	516,625	475,450

Greater Seminole

Carter Oil Co. completed No. 1 Dunaway, C E half NW SW Section 11-10-6, Seminole County. It flowed 440 bbls. in six hours through casing from Misener sand at 4,163-73 feet, total depth.

Manahan Oil Co.'s No. 1 Dixon C, SW NW NE Section 12-9-8, Seminole County, had what may be Senora sand at 1,715-65 feet, which yielded 210 bbls. of oil naturally and 5,600,000 feet of gas in 24 hours. It was completed. Same company's No. 1 Oliphant, NW NW SE Section 12-9-8, had sand at 1,728-56 feet. It swabbed 138 bbls. in 24 hours and then flowed 140 bbls. in the same length of time and was completed. Potco Oil Co. completed No. 2 McCaslin, SE NW NW Section 12-9-8, flowed 85 bbls. in 24 hours from sand at 1,690-1,734 feet.

Barnsdall Oil Corp.'s No. 1 Lowry, SW NW NW Section 29-8-4, Pottawatomie County, was a hole full of water from Wilcox sand at 4,790-91 feet, total depth, and was abandoned.

Magnolia Petroleum Co.'s No. 6 Denby, 250 feet north and 392 feet west of C Section 11-7-6, is a Booch sand producer at 3,105-27 feet. It started off at 11,000,000 feet of gas, with oil at the rate of 5 bbls. per hour. Later it flowed 106 bbls. of oil in 24 hours. Malarnee and others' No. 1 West Estate, SE SE NW Section 33-7-6, producing from Earlsboro sand at 2,947-59 feet, pumped 50 bbls. a day when completed, but it had produced as high as 185 bbls. in 24 hours, swabbing and flowing.

Reynolds Drilling Co.'s No. 1-A Fleetborn, SE NW SE Section 13-6-7, is a 50-bbl. well in Booch sand at 2,750-2,830 feet. It had been acidized, and swabbed and flowed as high as 130 bbls. in 24 hours.

Radial Oil Co.'s No. 1 Huddleston, NE NE SW Section 19-5-6, had Hunton lime at 2,394-2,570 feet. On its completion test it pumped 100 bbls. in 24 hours.

The Gypsy, Carter and Magnolia companies have a rig up for No. 1 Scott, C W half SE NW Section 11-10-6, Seminole County. Manahan Oil Co. and others made a location for No. 2 Dixon A, SE SW NW Section 12-9-8. Carter Oil Co. made a location for No. 3 Dill, C SE SE Section 2-11-8. Scott & Smith were rigging up standard tools to deepen No. 1-A McGee, SE NW NW Section 3-7-4 from 3,914 feet. Helmerich & Payne's No. 1 Wilsie, SW SW SE Section 7-7-4, set 12½-inch pipe at 75 feet; Scott & Smith were rigged up to deepen No. 1-A McGee, SE NW NW Section 3-7-4, old total depth 3,914 feet. Paramount Oil Co. made a location for No. 1 Weatherly, NE SW NW Section 24-1-7. Senora Oil & Gas Co.'s No. 4 Gilmer, 990 feet south and 150 feet west of NE cor. Section 22-5-8, rigging up machine; O. H. P. Thomas' No. 4 Gilmer, 990 feet south and 200 feet east of NW cor. Section 28-5-8, spudded; Radial Oil Co.'s No. 1 Ragland, SW SW NW Section 19-5-6, location.

In the Sand

Indian Territory Illuminating Oil Co.'s No. 1 Church, SW NW NW Section 13-6-5, Pottawatomie County, pumped 61 bbls. of oil and 732 bbls. of water from Dolomite at 3,790-3,838 feet, which had been given a 120-quart shot. It was shut down for orders.

In the Fish Pool, Burke-Greis Oil Co.'s No. 2 Yetcha, SW cor. NW Section 29-7-8, Hughes County, found Dolomite at 4,073 feet and was drilling at 4,095 feet. The well flowed 900 bbls. in 24 hours. Empire Oil & Refining Co.'s No. 2 Davis A, SW NE SE Section 30-7-8, swabbed 173 bbls. in six hours after an acid treatment in Dolomite at 4,098-4,110 feet, total depth.

Atlantic Oil Producing Co.'s No. 1 Anderson, C NW SE Section 12-9-4, Pottawatomie County, was acidized in Hunton lime at 4,196-4,217 feet and then given a 3-quart shot. It flowed 185 bbls. of oil in three hours and was then shut in.

Wood Oil Co.'s No. 1-A Homestake, SE NE NW Section 28-9-6, was shot with 15 quarts in Wilcox sand at 4,137-4,209 feet, total depth, and swabbed 645 bbls. of oil and 60 bbls. of water in 18 hours.

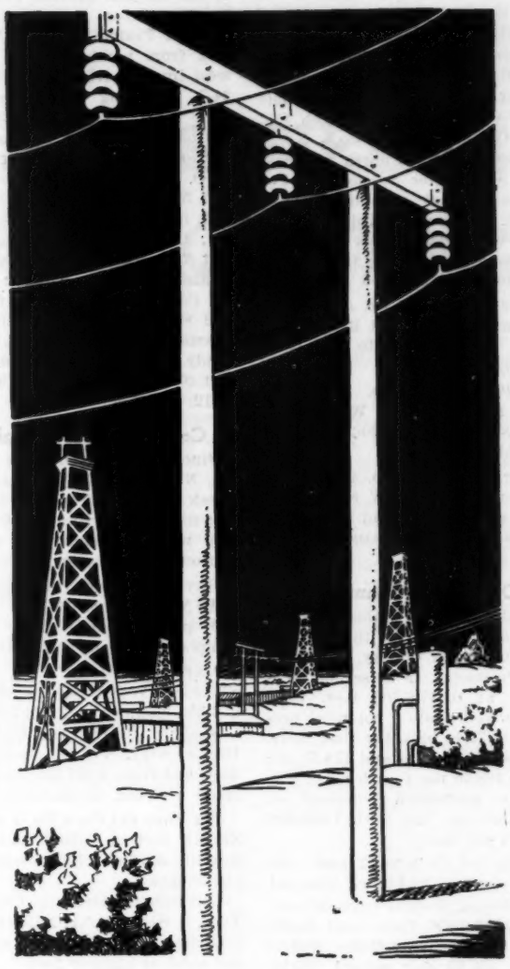
Carter Oil Co. and others' No. 2 Cully, C W half NW NE Section 18-10-6, Seminole County, swabbed 545 bbls. of oil in 10 hours from Wilcox sand at 4,579-89 feet, total depth, and then lost the swab in the hole.

Logan and Noble Counties

Stanolind Oil & Gas Co. and Amerada Petroleum Corp.'s No. 11 Lee, C NW NE Section 3-19-2w, Logan County, in the south end of the Lucien Pool, flowed 306 bbls. in 24 hours from first Wilcox sand at 5,008-87 feet, total depth 5,110 feet, and was completed.

Phillips Petroleum Co.'s No. 1 Pfeiffer, C NE NE Section 4-19-2w, was rated at 282 bbls. potentially. It produces from first Wilcox at 5,020-61 feet. Second sand at 5,134-57 feet did not increase the production.

In the same pool, but over the line in Noble County, Gypsy Oil Co.'s No. 1 Pfeiffer, 930 feet from the south



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and 660 feet from west lines of SE quarter Section 33-20-2w, was rated potentially at 785 bbls. producing from Second Wilcox sand at 5,025-5,135 feet.

East of the Lucien Pool, in Noble County, Atlantic Oil Producing Co., Empire Oil & Refining Co.'s No. 1 Strom, 640 feet from north and east lines of SE quarter Section 8-20-1w, was abandoned at a total depth of 5,297 feet. It was a hole full of water. The hole was plugged back to various depths, pipe perforated and formations tested with no good results.

Sinclair Prairie Oil Co. and others have cellar dug for No. 1 Brown, SW SW SW Section 31-17-1e, Langston district, Logan County.

Shell Petroleum Corp. has cellar and pits dug for No. 5 Weber, NW cor. SW NW Section 20-20-2w, Lucien Pool, Noble County.

Sinclair Prairie Oil Co. and others' No. 1 Glenn, NE NE SW Section 27-15-3w, Logan County, had a showing of oil in Second Wilcox sand at 6,347-63 feet, total depth.

Oklahoma County

Pure Oil Co.'s No. 2 Malms, NW NE SW Section 30-14-2w, in the Edmond Pool in Oklahoma County, was completed. Producing from second Wilcox sand at 6,647-6,700 feet, total depth, the well made a potential production of 275.40 bbls. the first hour, 193.80 bbls. the second and 178.50 the third and 188.70 the fourth hour, giving it an accredited potential of 5,018.40 bbls. per day with 7,626,300 feet of gas per day.

Marathon Oil Co.'s No. 7 Dahl, SE NW SE Section 31-14-3w, Edmond Pool, producing from second Wilcox sand at 6,555-6,690 feet, total depth produced by hour as follows: 589.83 bbls. first, 556.59 bbls. second, 529.22 bbls. third, 561.52 bbls. fourth, a total of 2,237.16 bbls. in four hours, giving it a potential rating of 13,422.96 bbls. per day of oil and 20,931,000 feet of gas.

British American Oil Co. has cellar and pits dug for No. 1 Piersol, 303 feet north and 326 feet west of SE cor. Section 22-12-3w, Oklahoma City Field. Pure Oil Co. has cellar dug for No. 3 Malm, NE NW SW Section 30-14-3w, Edmond Pool. Sinclair Prairie Oil Co. made a location for No. 1 Trusley, SE SW SE Section 17-13-3w, in the Britton area.

Marathon Oil Co.'s No. 8 Dahl, SW SW SE Section 31-14-3w, in the Edmond Pool, had Wilcox sands at 6,570-90 feet and 6,675-6,708 feet, total depth. It flowed 595 bbls. in 14 hours.

Osage County

Completions in Osage County in the week in review, their sand depths and initial production were as follows:

Winona Oil Co.'s No. 1m, SW cor. NE Section 15-28-10, dry and abandoned at 1,240 feet, no sand.

Lewis Production Co.'s No. 11, 990 feet south and 980 feet east of NW cor. Section 21-24-7, Bartlesville sand at 2,662-94 feet, total depth, shot with 20 quarts, flowed 326 bbls.

Lewis Production Co.'s No. 7, 300 feet from north and 980 feet from west lines of NE quarter Section 28-24-7, Bartlesville sand at 2,664-2,737 feet, shot with 80 quarts, flowed 163 bbls.

Barnsdall Oil Co.'s No. 2, NE NW NE Section 23-24-10, sandy lime at 1,990-2,050 feet, pumped 40 bbls.

New work in Osage County includes Champlin Refining Co.'s No. 1, SE cor. NE Section 17-24-7, building rig; Peters Petroleum Corp. and Sinclair Prairie Oil Co.'s No. 7, 1,270 feet from north and 445 feet from west lines of NE quarter Section 24-24-7, preparing to deepen from 724 feet; Carl Wever's No. 3, 710 feet south and 300 feet east of NW cor. Section 6-21-9, drilling at 325 feet; E. O. Platter's No. 6, 300 feet north and 535 feet west of C Section 30-22-9, location; Higgins & Cooper's No. 1-A, 1,230 feet from south and 1,020 feet from east lines of NE quarter Section 14-21-10, location; Barnsdall Oil Co.'s No. 20, 640 feet from south and 845 feet from east lines of SE quarter Section 18-23-12, location; Lindy Oil Co.'s No. 3-A, 300 feet south and 940 feet west of C Section 29-20-12, location.

Creek County Completions

Sinclair Prairie Oil Co.'s No. 4 Kernel, NW cor. NE SE Section 30-14-8, Creek County, deepened from 3,406 feet to Wilcox sand at 3,999-4,018 feet, shot with 40 quarts, was completed. It flowed 90 bbls. in 24 hours.

Guy Harris' No. 1-A Timothy, CNL NW NW Section 13-17-7, shot with 120 quarts at 1,910-2,012 feet, was completed as a 65-bbl. well.

Marathon Oil Co.'s No. 1 Bishop, SW cor. NW SW Section 13-17-8, was a 6-bbl. pumper at 2,766-2,872 feet.

Sinclair Prairie Oil Co.'s No. 47 Rector, SWL NW SE Section 6-18-7, deepened from 2,525 feet to 2,574 feet, made a 25-bbl. production.

Big Four Oil Co.'s No. 1 Smith, SE SE NE Section 34-19-8, had dry Bartlesville sand at 2,750-80 feet and was abandoned.

Commercial Drilling Co.'s No. 6 Tucker, SE cor. NE NE SW Section 17-19-9, is a 5-bbl. pumper from Skinner sand at 2,224-69 feet.

Green and others' No. 6 Grayson, NW NW SE Section 17-19-9, was dry and abandoned at 1,224 feet.

Big Four Petroleum Co. spudded No. 2 Hope, CNL SW SW Section 35-19-8, Creek County. L. B. Jackson has rig on the ground for No. 7 Brown, NE NE SW Section 27-18-8 and for No. 5 Bear, CSL SW SE SE Section 35-18-8.

Lincoln County

Stanolind Oil & Gas Co. and Amerada Petroleum Corp. made location for No. 1 Taylor, NE NE NE Section 5-14-3, Chandler area, Lincoln County. M. W. Cozart made location for No. 1 Sckovaty, NE NE NW Section 14-14-3. Fred McDuff made a location for No. 1-A Jacob, NE NE SE Section 10-15-3, a wildcat.

Caddo County

H. W. Lee and others' No. 1 Stacey Farrell, SW NE NE Section 3-6-13w, Caddo County, a 2,000-foot wildcat test, was dry and abandoned at 2,506 feet.

Okfuskee County

Raivern Oil Co.'s No. 1 Johnston, C NE NE Section 11-11-8, Okfuskee County, was acidized in Hunton lime at 3,868-3,906 feet and flowed 100 bbls. of oil net in five hours.

Southern Fields

Completions in southern Oklahoma were as follows:

Trio Oil Co.'s No. 1 Gibert, NW SW SW Section 25-8s-7e, Bryan County, dry and abandoned at 905 feet.

Godfrey & Neff's No. 2 Everets, 625 feet north and 1,270 feet east of SW cor. Section 20-4s-6, Jefferson County, abandoned at 253 feet. It had Tulip sand at 203-20 feet and green shale at 220-55 feet, and had been drilled for geological information.

Raisin Brothers' No. 16 Brown, 600 feet south and 1,020 feet east of C Section 2-2s-5w, Stephens County, sands at 618-26 feet and 640-45 feet, 4½ bbls. No. 17 Brown, 990 feet south and 1,020 feet east of C Section 2-2s-5w, oil sands at 604-29 feet and 655-60 feet, 2 bbls. L. A. Wilkins' No. 5 Crump, NW cor. NE NE Section 15-2s-5w, sand at 793-827 feet, 8 bbls. Myrtle Green's No. 3 Green, SE cor. NE NE SE Section 27-1s-5w, sands at 883-98 feet and 918-34 feet, 10 bbls.; No. 4 Green (twin to No. 3), sands at 708-14, 721-40 feet, 7 bbls. Skelly Oil Co.'s No. 10 Harmon, NE cor. SE NE NE Section 27-1s-5w, oil sands at 608-15, 623-26 and 6673-74 feet, 7 bbls.

New work started in southern counties included Southern Oil Co.'s No. 1 Fish, SW SW SW Section 6-1s-8, Coal County, rigging up material; Neff & Godfrey's No. 1 Merrill, 820 feet north and 670 feet west of SE cor. Section 28-4s-6, machine in for test to be drilled for geological information; Twin State Oil Co. and others' No. 1 Cochneur, NE cor. SE NW Section 8-4s-3w, Carter County, rigging machine to deepen; Raisin Brothers' No. 19 Brown, 990 feet from north and 720 feet from east lines of SE quarter Section 2-2s-5w, Stephens County, rigging up machine; Hawkins and others' No. 1 State land, SE cor. NE SW SE Section 20-2n-10w, Comanche County, drilling at 600 feet; C. C. Holcombe's No. 1-A Pumiston, NE cor. NW SW Section 16-7s-5w, Jefferson County, rigging up rotary; Gypsy Oil Co.'s No. 1 Southerland, C NE SE SE Section 31-1n-19w, Jackson County, rigging up rotary.

Buys Oil Burner Company

Colonial Beacon Oil Co., New England refining and marketing subsidiary of Standard Oil Co. (New Jersey), has purchased the firm of Arthur H. Ballard, Inc., manufacturer and marketer of oil burners. The company has also been selling furnace oils. Colonial Beacon Co. will sell the Ballard burners and also burners manufactured by the Gilbert Barker Co.

Gasoline Imports

CHATHAM, Ontario, Oct. 12.—Canadian imports of natural casinghead, compression or absorption gasoline lighter than .6690 specific gravity in July, 1935, totaled 6,038,164 gallons valued at $356,902, of which 3,490,904 gallons valued at $202,761 came from the United States and the remainder from Peru. The June imports, all from the United States, were 5,887,725 gallons worth $333,831.

Imports of gasoline lighter than .8235 specific gravity reached 2,238,419 gallons valued at $202,917 in July against 1,842,916 gallons worth $166,828 in June. All the June imports came from the United States, but in July 400,000 gallons worth $28,123 came from Rumania.

Exports of gasoline and naphtha in July reached 791,240 gallons worth $84,686 compared with 29,429 gallons at $4,722 in June.

Southland Buys Plant

Southland Refining Co. of Olney has purchased from White & Duncan of Wichita Falls the refinery formerly known as the Archer Refining Co., between Olney and Megargel, 2 miles south of the Swastika Field. The plant of 500 bbls. capacity will be operated in connection with the Olney refinery.

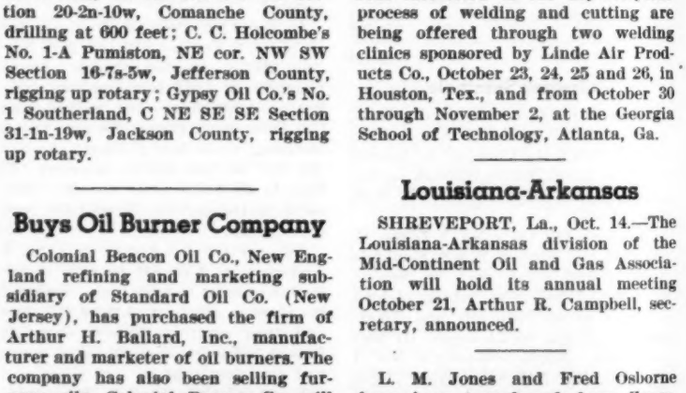
Welding Clinics

Educational opportunities for persons interested in the oxy-acetylene process of welding and cutting are being offered through two welding clinics sponsored by Linde Air Products Co., October 23, 24, 25 and 26, in Houston, Tex., and from October 30 through November 2, at the Georgia School of Technology, Atlanta, Ga.

Louisiana-Arkansas

SHREVEPORT, La., Oct. 14.—The Louisiana-Arkansas division of the Mid-Continent Oil and Gas Association will hold its annual meeting October 21, Arthur R. Campbell, secretary, announced.

L. M. Jones and Fred Osborne have been transferred from Zanesville, Ohio, to Mount Pleasant, Mich., where they are employed by W. Hunter Atha, independent operator.



Left to right: L. Buckley, Beaumont, Tex.; Capt. John V. Olsson, skipper of the M. S. Sun, Philadelphia, Pa.; W. E. Dickinson, Beaumont, all with the Sun Oil Company

California Field Report

DISCOVERY OF GAS FIELD IN TRACY DISTRICT CONFIRMED

By L. P. STOCKMAN

LOS ANGELES, Calif., Oct. 14.—Amerada Petroleum Corp. confirmed the existence of a gas field of primary importance this week in the Tracy district of San Joaquin County and extended the limits of production about 2,000 feet by completing No. 3 F.L.D. flowing 45,000,000 feet of gas per day. This new producer, in Section 22-2-5, was drilled from spud to completion in a little less than 15 days. It is the second large gas well completed by Amerada in the Tracy area, No. 2 F.L.D. in Section 15-2-5 having been completed some time ago doing 35,000,000 feet per day from 4,063 feet. The company's initial well in the Tracy area, in Section 15-2-5, is being carried down as a deep conclusive test to determine the possibility of developing oil production. This well recently passed the 8,000-foot level but has not yet found any favorable indications since passing through the gas zone. Due to the rapidity with which wells in this field can be completed, it appears probable additional development will be undertaken in the near future.

Amerada's new well, on land leased from California Lands, Inc., subsidiary of Transamerica Corp., is in the center of a block of approximately 5,000 acres. Amerada's discovery well, No. 2 F.L.D., completed a few months ago, went on commercial production early this week for the first time under a tentative contract, during the operation of which the Pacific Gas & Electric Co. will be in a position to determine the advisability of extending its main trunk line. It is probable No. 3 F.L.D., completed a few days ago, may also be put on production in the near future. Completion of these two gas wells in the Tracy area may greatly stimulate additional exploration work in the northern part of the State. Practically every major operator in California holds potentially productive acreage in the counties adjacent to the San Francisco Bay Region and it is likely wildcats will be drilled in that vicinity before the close of 1936.

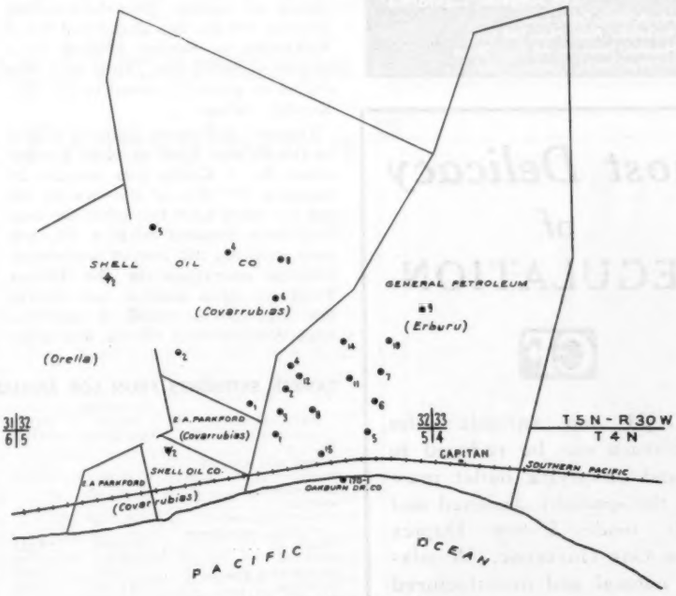
Long Beach

Production of the Long Beach Field has increased approximately 4,000 bbls. per day during the past week due to the resumption of production by Shell Oil Co., which is opening up a number of wells shut in over a year ago as a conservation measure. The company still has some additional wells shut in at Long Beach and they may be opened up in the near future. Crude oil production in the State bounced up again this week, precluding possibility of higher prices until conditions improve. The gasoline price war, which resulted in a further reduction of 1 cent per gallon in southern California territory this week, is also retarding the return of crude prices to normal. There was only one new well finished in the Long Beach Field during the week, Mines Oil Co.'s No. 3 Signal, brought in pumping 80 bbls. of 25.2 gravity per day from 3,990 feet after the hole had been redrilled to 3,505 feet and a 7-inch water string landed and cemented at 3,300 feet. Shell Oil Co. is swabbing No. 3 Andrews and Big Four Oil Co. is swabbing No. 1 Signal for production following completion at 4,735 feet.

Shell Oil Co. completed two wells on the Reyes lease in the Dominguez Field during the week. No. 67 Reyes, bottomed at 4,525 feet and finished with a 5¾-inch liner including 255 feet of perforated, was brought in flowing 790 bbls. of 29.4 gravity oil and 970,000 feet of gas per day. No. 70 Reyes was completed flowing 390 bbls. of 30.5 gravity oil and 490,000 feet of gas per day from 4,450 feet following completion with a 5¾-inch liner including perforations at 4,219-4,387 feet and at 4,416-50 feet. Union Oil Co.'s No. 7 Carson, completed in the Miocene at 7,105 feet after the hole had been plugged back from 7,205 feet, was brought in doing 95 bbls. of 30.3 gravity on a gas lift. This well, though the production was relatively insignificant, is a satisfactory completion as it is well out on the south flank of the structure, an edge well.

San Miguelito

Continental Oil Co. added a well in the San Miguelito Field of Ventura County when No. 4 Grubb was brought in flowing 1,610 bbls. of 31.6 gravity and 1,270,000 feet of gas per day from 6,949 feet. This well, in Section 23-3-24, was given a preliminary production test earlier but was subsequently killed to run in a 5½-inch liner including 150 feet of perforated. The liner froze at 6,778 feet and the lower part of the hole is open as the 7-inch water string had previously been landed and cemented at 6,720 feet. This is the fourth producing well completed by Continental Oil Co. in the San Miguelito Field since its discovery. The company, to enhance curtailment, refrained from drilling operations for approximately a year. Continental has started rig construction for a test to be drilled on the Hobson property in Section 15-3-24. No. 1 Hobson is north of the main fault in the San Miguelito Field and the outcome will be watched because of showings several years ago by Chanslor-Canfield Midway Oil Co. in a well which drifted sufficiently to transverse the fault. The area north of the fault is a down thrust and Continental Oil Co. will be obliged to drill to a substantially greater depth to reach a point comparable with the completion depth of No. 4 Grubb, 6,949 feet. Chanslor-Canfield Midway Oil Co. is swabbing No. 2-A Hobson for production following completion at 7,906 feet and this well, which shows a casinghead pressure of 550 pounds, should be tanking oil within 48 hours. No. 2-A Hobson was originally bottomed at 10,030 feet, but the lower part of the hole has been abandoned and the upper part straightened by a redrilling job.



CAPITAN FIELD
SANTA BARBARA COUNTY, CALIFORNIA

Rincon

General Petroleum and Richfield Oil Co. have recently started a reconditioning program in Rincon Field of Ventura County and the latter has started swabbing No. 4 Hobson fee after the hole had been plugged back from 4,359 feet to 4,250 feet. General Petroleum is deepening No. 2 Tomson and the bit in this hole is in a rather good looking oil sand. Drilling operations in the Ventura Avenue Field, although substantially lower than for some time, should result in the completion of several new wells before the close of the year. Property Service Corp. has reached 9,590 feet in No. 3 Dabney-Lloyd, a deep test about 3,000 feet beyond the most easterly producer in the Ventura Avenue Field, and while this test has shown oil sand from time to time, the sand has not been thick enough to result in commercial production. This well showed promise of resulting in production higher in the hole and it will be given another test on the way out if deep drilling fails.

Elwood

Pacific Western Oil Co. established an excellent drilling record in the Elwood Field of Santa Barbara County by completing Caroline Spalding's No. 11 on tideland permit No. 93 from spud to completion in approximately 39 days. This well, finished in the Vaqueros at 3,657 feet, was brought in flowing 2,860 bbls. of 31.2 gravity per day. It is at the extreme outer end of a 2,800-foot pier and, as it is one of four wells at this point, it was necessary to resort to directional drilling. Directional drilling in this instance substantially reduced drilling costs, as the company would have been obliged to lengthen the existing pier if it had drilled a straight hole. Pacific Western has about completed construction of rig foundation for No. 16 on tideland permit No. 92. Honolulu Oil Corp. is rotating in No. 9 on tideland permit No. 90 and should pick up the Sespe very soon if it is to result in commercial production. Barnsdall and Rio Grande, jointly developing several leases in the Elwood Field, are being held up with mechanical trouble in No. 12 Luton-Bell at 6,703 feet. No. 18 Luton-Bell is standing cemented at 3,598 feet with bottom of the hole at 3,676 feet. It was the intention to land a 10¾-inch water string but this casing froze at 3,410 feet and the company was obliged to run in 235 feet of 8⅝-inch, landed and cemented at 3,598 feet.

Shell Oil Co. should complete two wells in the Capitan Field of Santa Barbara County within a few weeks and present plans contemplate additional drilling upon their completion. In the Goleta district, Shell has aban-

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doned No. 1 Hollister as a duster at 2,977 feet and is rigging up rotary equipment preparatory to spudding in No. 2 on the same lease. In the Carpinteria area of Santa Barbara County, Julius Dietzman is making preparations to spud in No. 1 Fitchian and Santa Barbara Oil & Gas Co. is rigging up cable tools on No. 1 Bryce, scheduled to be spudded in shortly. Mar Monte Oil Co. has about completed rigging up No. 1 Williams in the Summerland district of Santa Barbara County and spud should be made within a week. Union Oil Co.'s No 1 LeRoy, a wildcat in the Santa Maria district, has taken on a rather doubtful outlook and it would not be surprising if it was abandoned.

Mountain View

Barnsdall Oil Co. recompleted No. 1-A Hubro-Noble after redrilling and deepening the hole to 6,147 feet and finishing it with a 4¾-inch liner including 94 feet of perforated. Barnsdall took this well over a few weeks ago and carried it to the Wharton zone. It was returned to production early in the current week flowing 1,180 bbls. of 32.1 gravity oil and 1,300,000 feet of gas per day. Barnsdall is rigging up rotary equipment on No. 5 Morris in Section 30-30-29. Hogan Petroleum Co. is rotating in No. 6 Porter-Day in a good looking oil sand at 5,621 feet and this well should be tanking oil within a fortnight. Dana Hogan should also complete a personal venture as his No. 1 Foster in Section 32-30-29 is being reamed preparatory to landing a string of casing. Chanslor-Canfield Midway Oil Co. has abandoned No. 1 McKendry in Section 11-30-28 as a duster at 6,606 feet. This well was drilled on property owned by the McKendry College.

General Petroleum finished a well in the Edison Field of Kern County when No. 4 Knapp was brought in pumping 520 bbls. of 19.9 gravity oil per day from 1,329 feet after the hole had been finished with a 6⅝-inch liner carrying 282 feet of perforated. Drilling operations in the Edison Field are little smaller, but several new rigs are in course of construction. Western Gulf Oil Co. has spudded No. 1 Sawyer & Reid, is rigging up rotary equipment in No. 1 Burlock in the Fruitvale Field of Kern County, is installing pumping equipment on No. 1 Brackenbury and is testing water shutoff on No. 1 Wear. S. & G. Oil Co. is rigging up No. 1 Nichol in Section 26-29-27. R. E. Bering is rigging up No. 1 Maylan on the McDonald anticline in Section 12-28-19.

Mount Poso

Texas Co. completed No. 8 Vedder in the Mount Poso Field of Kern County and immediately began preparations to spud No. 9 on the same lease. Location has been staked for No. 10 Vedder. Texas Co.'s new producer was brought in on the beam pumping 371 bbls. of 16.7 gravity oil per day from 1,824 feet. Union Oil Co. has completed No. 28 S. & M. pumping 324 bbls. of 16.8 gravity per day from 1,940 feet. It was finished with a 6⅝-inch liner carrying 95 feet of perforated with the cement job effected through perforations at 1,845 feet. Union has one other well, No. 29 S. & M., ready to be spudded in at Mount Poso and has staked location for No. 30 on the same property, owned in fee. General Petroleum's No. 3 Glide in Section 21-27-28 is standing cemented in the pay at 1,746 feet. Two new wells are being started in the Mount Poso Field. Falcon Oil Co.'s No. 1 Poso in Section 27-26-28 and Hugh McMann's No. 1 S. P. in Section 33-26-28.

Bishop Oil Co. added a well out in the west front section of the Kern River Field when No. 6 McDonald was brought in pumping 199 bbls. of 16.3 gravity oil per day from 2,145 feet after the hole had been finished with an 8⅝-inch liner including 280 feet of perforated. Chanslor-Canfield Midway Oil Co. should have its No. 48 in Section 23-28-27 tanking oil within a few days and this should be followed by No. 4 fee of Standard Oil Co. in Section 5-28-27, No. 5 Premier fee of Associated Oil Co. in Section 4-28-27 and National Oil Co.'s No. 1 Standard in Section 11-28-27. Out in the Round Mountain Field of Kern County, Shell is bailing No. 5 on Jewett lease No. 3 following completion at 2,077 feet. Seahawk Oil Co.

TANKER SHIPMENTS FROM LOS ANGELES TO DOMESTIC AND FOREIGN PORTS

	Sept. 29		Sept. 22			
Intercoastal-domestic—	Total this week	Daily average	Total last week	Daily average	This year to date	Same time last year
Fuel oil	.....	.....	.....	.....	.....	10,432,469
Diesel and gas oil	.....	.....	.....	.....	527,098	1,098,288
Gasoline	78,423	11,203	115,970	16,567	5,856,709	5,823,286
Kerosene	.....	.....	.....	.....	753,457	798,453
Asphalt	.....	.....	.....	.....	.....	70,019
Other finished oil	.....	.....	.....	.....	.....	54,778
Foreign exports—						
Crude oil	121,033	17,433	239,541	34,220	9,921,529	5,994,835
Fuel oil	159,424	22,775	237,834	33,976	9,112,939	9,712,373
Diesel and gas oil	6,920	989	123,496	17,642	3,429,999	3,056,117
Gasoline	123,757	17,680	118,558	16,937	5,014,246	3,277,786
Kerosene	.....	.....	.....	.....	956,477	1,358,947
Other finished oil	.....	.....	.....	.....	.....	27,955
Other unfinished oil	.....	.....	.....	.....	99,847	221,305
Coastwise-domestic—						
Crude oil	150,137	21,448	340,751	48,679	4,740,022	6,230,432
Fuel oil	232,353	33,193	118,839	16,991	7,442,486	7,153,772
Diesel and gas oil	11,339	1,620	.....	.....	687,140	553,059
Gasoline	267,110	38,159	183,790	26,256	8,555,041	9,679,460
Kerosene	3,497	500	.....	.....	146,339	116,246

TANKER SHIPMENTS FROM SAN FRANCISCO TO DOMESTIC AND FOREIGN PORTS

Intercoastal-domestic—						
Fuel oil	.....	.....	.....	.....	.....	110,650
Diesel and gas oil	.....	.....	.....	.....	158,152	526,288
Gasoline	.....	.....	.....	.....	.....	290,825
Kerosene	.....	.....	.....	.....	149,715	276,412
Asphalt	.....	.....	.....	.....	420,414	.....
Lubricants	11,705	1,672	.....	.....	57,325	34,695
Foreign exports—						
Crude oil	54,288	7,755	.....	.....	1,893,252	1,492,701
Fuel oil	20,186	2,884	.....	.....	1,693,780	1,581,207
Diesel and gas oil	.....	.....	.....	.....	855,891	1,085,850
Gasoline	164,625	23,518	.....	.....	2,278,134	2,411,704
Kerosene	29,788	4,255	.....	.....	627,396	876,266
Lubricants	18,269	2,610	.....	.....	173,567	143,157
Other finished oil	.....	.....	.....	.....	.....	2,760
Other unfinished oil	.....	.....	.....	.....	.....	5,750
Coastwise-domestic—						
Fuel oil	395,449	56,493	72,481	10,354	5,283,848	4,294,762
Diesel and gas oil	.....	.....	.....	.....	175,932	119,036
Gasoline	14,780	2,111	77,876	11,082	3,262,347	4,042,225
Kerosene	.....	.....	2,782	397	76,785	64,805

is rigging up rotary tools in No. 1 Jordan in Section 24-28-28.

Kettleman Hills

Standard Oil Co. finished an excellent well in the Kettleman North Dome Field when No. 76-19-J was brought in flowing 7,325 bbls. of 32.7 gravity oil and 5,354,000 feet of gas per day following completion at 8,620 feet. Kettleman North Dome's latest completion was No. 56-20-J in Section 20-21-17 flowing 1,780 bbls. of 37.2 gravity oil and 1,740,000 feet of gas per day from 8,232 feet after the hole had been plugged back from 8,707 feet. The initial daily production does not represent its maximum potential because Kenda did not give it a chance to register its maximum. Both Kenda and Standard are working on a number of potential producers within striking distance of completion and perhaps 10 wells may be completed in the North Dome before the new year.

Continental Oil Co. has cored about 50 feet of good looking oil sand in No. 1 Gatchell, in the South Dome of Kettleman Hills, and a string of 3-inch casing has been landed and cemented at 7,766 feet preparatory to an early test. Continental has had several showings in this well, but water has prevented a successful production test. This trouble is responsible for the landing of such a small water string at 7,766 feet. This is the second test to show oil sand in the South Dome and it begins to look like it might be possible to overcome this high head water and develop commercial production. Ohio Oil Co.'s deep test in this dome, drilled several years ago, looked like an almost sure shot to result in commercial production, but when turned loose it came in flowing 50,000 bbls. of hot salt water per day. In the Middle Dome Standard Oil Co. is held up with water trouble in No. 38-29-V in Section 29-23-19, but is expected to overcome this difficulty. The second well of Petroleum Securities is not yet deep enough to pick up the pay, and judging by its depth and the hard formation it may not top the oil sand before Christmas.

Montebello

In the Montebello drilling operations are showing a substantial increase in the face of discouraging results. Universal Consolidated Oil Co. has an untested oil sand in two of its drilling wells, No. 1 Estrada and No. 1 Farmer, the former down 5,341 feet and the latter 5,910 feet. The Farmer well looks the better and preparations are under way to land and cement a string of casing to make a production test. A formation test is being made of No. 1 Estrada. Union Oil Co.'s No. 26 Alexander in the Santa Fe Springs Field was completed early this week pumping 60 bbls. of 33.1 gravity oil per day from 4,458 feet.

Completions and Operations in New York-Pennsylvania Gas Field

By R. C. CONINE

COUDERSPORT, Pa., Oct. 14.—A duster in Urbana Township, Steuben County, was the only completion in the New York and Pennsylvania Oriskany gas district. This was completed at 3,150 feet on the L. Putman farm, Hungiville and others drilling. In Pennsylvania there were four wells drilling, two rigging up and one new location. In New York there were eight wells drilling, one new rig up, one fishing job and two locations.

Pennsylvania Operations

New York State Natural Gas Co. was drilling at 2,050 feet on the Stahle farm, Clymer Township, Potter County. Godfrey L. Cabot was drilling at 4,400 feet on the A. G. Lyman farm, Ulysses Township. Sylvania Natural Gas Co. was drilling cement at 5,252 feet on No. 4 James, Allegany Township. Godfrey L. Cabot was drilling at 125 feet on the Duke estate property, Genesee Township. Miller, Ake, and others were rigging up on the Walter Burrell farm, same township. Penn York Natural Gas Co. staked a location on the Theodore farm, same township. Hanley & Bird were rigging up on the Burd farm for a No. 2, Allegany Township.

New York Operations

Godfrey L. Cabot was drilling at 4,169 feet on the Alice Cunningham farm, Willing Township, Allegany County. The Tully was found at 4,139 feet. Same party was drilling at 3,643 feet on the Dora Barber farm, same township. On the Burns farm, Alma Township, Becker and others are fishing at 4,063 feet. Cunningham Natural Gas Co. is drilling at 3,950 feet on No. 2 Regan, Willing Township. Godfrey L. Cabot is drilling at 2,950 feet on the C. Moynihan farm, same township. Same party is drilling at 2,150 feet on the No. 2 Murray Estate, Belfast Township. Belmont Quadrangle Development Co. has completed a rig on the C. D. Regan farm, Alma Township. Same company has staked a location on the Thomas Burns farm, same township. Bayliss and others were drilling at 220 feet on the H. Behrens farm, Allen Township.

Wyoming Natural Gas Co. was shut down at 1,783 feet on the C. H. Caulling farm, York Township, Livingston County. Hanley & Bird were drilling at 3,060 feet on the M. Ackley farm, Greenwood Township, Steuben County. Wyoga Oil & Gas Co. was drilling at 3,050 feet on the Estee farm, Charlotte Township, Chautauqua County. Property Shares was down 705 feet on the Ringdahl farm, Rome Township, Oneida County. Wittmer Oil & Gas Co. was moving in on the Byron Shults farm, Avoca Township, Steuben County.

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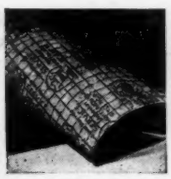

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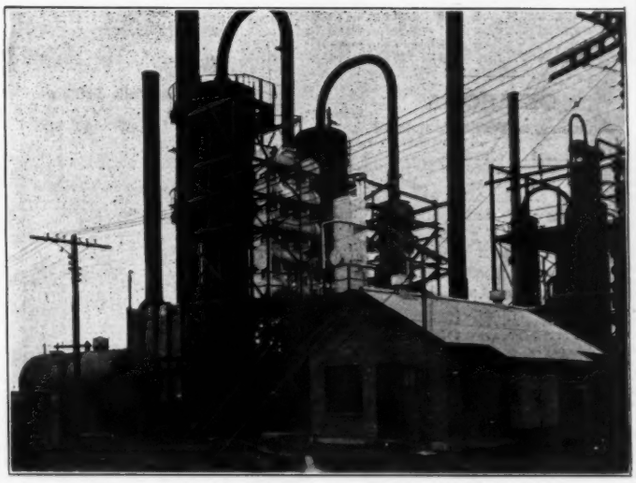

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Summary of Operations, All Fields, September

SUMMARY OF ALL FIELDS

Summary of Wells Completed

	Comp.	Prod.	Dry	Gas
Eastern	280	125	0	0
Central Ohio	10	0	4	6
Lima	5	16	0	3
Indiana	18	30	11	4
Michigan	44	23,823	8	15
Kentucky	22	552	2	2
Illinois	1	1	0	0
Kansas	108	131,201	30	3
Oklahoma	164	89,008	46	4
North Central Texas	215	24,519	88	1
East Central Texas	19	649	9	2
East Texas	225	9,392	10	0
West Texas	81	29,421	11	2
Panhandle Texas	80	39,473	5	5
Gulf Coast Texas	96	20,773	29	5
Gulf Coast Louisiana	19	11,015	9	0
Southwest Texas	290	49,050	52	9
North Louisiana	34	27,350	10	14
Arkansas	8	310	6	0
Mississippi	5	0	5	0
Montana	21	1,343	8	2
Wyoming	15	2,509	6	1
Colorado	2	360	1	0
Alabama	1	0	1	0
New Mexico	42	92,669	5	0
Utah	1	0	0	1
Total Sept.	1,806	553,589	356	79
Total Aug.	1,921	479,154	454	117
Difference	115	74,435	98	38

Rigs and Wells Drilling

	Rigs	Dig.	Ttl.
Eastern	64	224	288
Central Ohio	14	66	80
Lima	1	28	29
Indiana	1	50	51
Michigan	95	113	208
Kentucky	4	12	16
Illinois	0	8	8
Kansas	29	207	236
Oklahoma	54	527	581
North Central Texas	66	197	263
East Central Texas	12	36	48
East Texas	86	146	232
East Texas gas field	13	12	25
West Texas	70	226	296
Panhandle Texas	41	146	187
Gulf Coast Texas	18	118	136
Gulf Coast Louisiana	10	58	68
Southwest Texas	23	175	198
North Louisiana	36	74	110
Arkansas	11	27	38
Mississippi	1	9	10
Alabama	0	3	3
Montana	10	56	66
Wyoming	11	64	75
Colorado	4	27	31
New Mexico	10	99	109
Utah	2	8	10
Florida	0	1	1
Total Sept.	686	2,717	3,403
Total Aug.	724	2,889	3,613
Difference	38	172	210

OKLAHOMA

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Cotton	1	20	0	0
Creek	15	6	0	0
Carter	5	251	2	0
Comanche	1	0	1	0
Grady	1	0	0	1
Hughes	2	0	2	0
Jackson	7	212	3	0
Jefferson	3	40	1	0
Kay	2	8	1	0
Lincoln	1	0	1	0
Logan	2	994	1	0
Murray	1	0	1	0
Marshall	5	5	4	0
McIntosh	1	0	0	1
Muskogee	5	110	3	0
Noble	11	9,897	0	0
Oklahoma	9	38,245	1	0
Osage	24	9,660	3	0
Okmulgee	11	67	7	0
Okfuskee	3	0	2	1
Pawnee	1	0	1	0
Pontotoc	18	20,604	4	0
Pottawatomie	4	762	1	0
Seminole	18	8,094	1	0
Stephens	6	20	2	0
Tulsa	6	13	3	1
Wagoner	1	0	1	0
Total Sept.	164	89,008	46	4
Total Aug.	204	126,688	51	11
Difference	40	37,680	5	7

Rigs and Wells Drilling

County—	Rgs.	Dig.	Ttl.
Alfalfa	0	1	1
Atoka	0	13	13
Beckham	1	2	2
Blaine	0	1	1
Bryan	1	2	3
Caddo	0	8	8
Cleveland	1	4	5
Cotton	0	1	1
Creek	3	42	45
Carter	2	12	14
Coal	0	2	2
Comanche	1	6	7
Choctaw	1	4	5
Ellis	0	1	1
Grant	1	3	4
Garfield	0	2	2
Garvin	0	1	1
Grady	0	2	2
Greer	1	5	6
Harmon	0	2	2
Hughes	2	10	12
Jackson	0	11	11
Jefferson	0	4	4
Kay	0	4	4
Kiowa	0	3	3
LeFlore	0	1	1
Love	0	1	1
Logan	0	17	17
Lincoln	1	5	6
Marshall	0	11	11
Murray	0	1	1
McClain	0	1	1
Muskogee	1	3	4
Noble	0	14	14
Oklahoma	5	52	57
Osage	13	46	59
Okmulgee	2	37	39
Okfuskee	1	15	16
Pawnee	0	2	2
Payne	0	2	2
Pontotoc	6	59	65
Pittsburg	0	1	1
Pottawatomie	3	11	14
Pushmataha	0	1	1
Seminole	6	56	62
Stephens	0	13	13
Tillman	0	2	2
Tulsa	1	14	15
Wagoner	1	15	16
Washita	0	1	1
Total Sept.	54	527	581
Total Aug.	53	507	560
Difference	1	20	21

KANSAS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Barber	1	0	0	1
Barton	2	320	1	0
Butler	4	85	3	0
Cowley	5	450	0	0
Ellis	1	818	0	0
Ellsworth	9	12,819	0	0
Greenwood	4	105	1	0
Harper	1	0	1	0
Harvey	4	489	1	0
Kingman	1	216	0	0
McPherson	9	1,474	2	0
Morris	1	0	0	1
Pratt	1	360	0	0
Reno	7	3,070	1	0
Rice	23	13,105	6	1
Rush	1	0	1	0
Rooks	1	0	1	0
Russell	15	4,287	8	0
Scott	1	781	0	0
Sedgwick	1	0	1	0
Sumner	8	91,273	0	0
Stafford	1	625	0	0
Trego	1	504	0	0
Woodson	6	470	3	0
Total Sept.	108	131,201	30	3
Total Aug.	122	73,266	23	2
Difference	14	57,935	7	1

Rigs and Wells Drilling

County—	Rgs.	Dig.	Ttl.
Barber	0	1	1
Barton	1	7	8
Butler	1	16	17
Clark	0	1	1
Clay	0	1	1
Cowley	1	8	9
Dickinson	0	1	1
Ellis	0	4	4
Ellsworth	5	23	28
Graham	0	3	3
Greenwood	0	6	6
Harvey	0	7	7
Kingman	1	1	2
Logan	0	1	1
McPherson	0	12	12
Marion	1	1	2
Osage	0	1	1
Pratt	0	1	1
Reno	1	9	10
Rice	9	29	38
Rooks	1	4	5
Rush	1	5	6
Russell	5	26	31
Scott	0	1	1
Sedgwick	0	6	6
Sumner	0	19	19
Stafford	2	3	5
Trego	0	3	3
Woodson	0	7	7
Total Sept.	29	207	236
Total Aug.	31	208	239
Difference	2	1	3

GULF COAST

Texas

Summary of Field Operations

Field—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Anahuac	4	1,228	1	0	1	7	8
Arriola	1	0	0	1	0	1	1
Barbers Hill	1	472	0	0	0	0	0
Batson	2	192	1	0	0	2	2
Big Hill	0	0	0	0	0	2	2
Big Creek	0	0	0	0	0	1	1
Boling	2	65	0	0	0	2	2
Clay Creek	1	0	1	0	0	2	2
Cleveland	1	236	0	0	0	0	0
Coletto Creek	1	0	1	0	1	1	2
Conroe	4	1,851	0	0	1	3	4
Damon Mound	1	0	1	0	0	0	0
Danbury	1	0	1	0	0	0	0
Dickinson	2	825	0	0	2	5	7
Esperson	2	0	1	1	0	1	1
Fannett	0	0	0	0	0	1	1
Hankamer	2	200	1	0	2	3	5
Hastings	10	4,920	0	0	3	9	12
High Island	4	1,135	0	1	0	5	5
Hull	0	0	0	0	0	1	1
Humble	1	0	1	0	0	3	3
Livingston	4	1,151	0	0	1	5	6
Louise	2	19	1	0	0	2	2
Manvel	7	1,753	1	0	1	5	6
Mykawa	5	735	2	0	1	1	2
Orchard	0	0	0	0	0	2	2
Pickett Ridge	1	384	0	0	0	0	0
Pierce Jnct.	1	0	1	0	1	4	5
Placedo	5	266	1	0	0	2	2
Pledger	0	0	0	0	0	1	1
Port Neches	2	535	0	0	0	0	0
Port Lavaca	1	650	0	0	0	4	4
Raccoon Bend	2	1,026	0	0	0	1	1
Refugio	1	460	0	0	0	0	0
Saratoga	0	0	0	0	0	1	1
So. Houston	3	947	0	0	0	3	3
Splendora	0	0	0	0	1	0	1
Thompson	1	75	0	0	0	0	0
Tomball	8	1,648	1	2	0	8	8
Vanderbilt	1	0	1	0	0	0	0
Van Vleck	0	0	0	0	0	2	2
Misc.	12	0	12	0	3	28	31
Total Sept.	96	20,773	29	5	18	118	136
Total Aug.	90	23,762	23	6	24	135	159
Difference	6	2,989	6	1	6	17	23

Louisiana

Summary of Field Operations

Parish—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Bay St. Elaine	0	0	0	0	0	1	1
Bayou St. Dennis	2	3,789	0	0	0	0	0
Black Bayou	1	0	1	0	0	2	2
Caillou Isl.	0	0	0	0	0	2	2
Cameron Meadows	1	725	0	0	1	1	2
Choctaw	0	0	0	0	0	1	1
Darrow	1	0	1	0	0	1	1
Dog Lake	0	0	0	0	0	1	1
Four Isle	0	0	0	0	1	1	2
Garden Isl.	1	1,750	0	0	1	0	1
Gillis	1	514	0	0	1	6	7
Gueydan	0	0	0	0	0	1	1
Hackberry	2	1,000	1	0	0	2	2
Iowa	0	0	0	0	0	1	1
Jennings	0	0	0	0	0	2	2
Lake Barre	0	0	0	0	0	1	1
Lake Hermitage	0	0	0	0	0	1	1
Lake Pelto	0	0	0	0	1	0	1
Leesville	1	1,500	0	0	2	1	3
New Iberia	1	516	0	0	0	3	3
Roanoke	1	0	1	0	0	4	4
Sulphur	1	325	0	0	0	1	1
Sweet Lake	0	0	0	0	0	1	1
Tepetate	0	0	0	0	0	3	3
White Castle	1	596	0	0	0	2	2
Misc.	5	0	5	0	3	19	22
Total Sept.	19	11,015	9	0	10	58	68
Total Aug.	34	16,477	8	1	12	56	68
Difference	15	4,462	1	1	2	2	0

WEST TEXAS

Summary of Wells Completed

County—	Comp.	Prod.	Dry	Gas
Andrews	5	1,170	3	0
Crane	4	1,348	2	0
Ector	9	3,004	1	0
Fisher	5	383	0	0
Howard	12	6,269	0	0
Jones	5	337	2	0
Pecos	6	1,993	0	0
Reagan	1	0	1	0
Runnels	1	0	1	0
Upton	4	1,367	0	0
Ward	18	9,133	1	1
Winkler	11	4,417	0	1
Total Sept.	81	29,421	11	2
Total Aug.	97	44,105	18	1
Difference	14	14,684	7	1

Rigs and Wells Drilling

County—	Rgs.	S.D.	Dig.	Ttl.
Andrews	1	0	6	7
Brewster	0	4	0	4
Cochran	0	1	1	2
Coke	0	1	0	1
Concho	0	2	0	2
Crane	1	1	4	6
Crockett	1	2	0	3
Culberson	0	0	1	1
Dawson	0	2	0	2
Ector	10	3	17	30
El Paso	0	2	0	2
Fisher	5	2	7	14
Garza	0	0	1	1
Glasscock	1	1	2	4
Howard	5	3	17	25
Jeff Davis	0	1	0	1
Jones	8	1	10	19
Kimble	1	0	1	2
Loving	0	0	3	3
Lynn	0	1	0	1
Mitchell	0	2	1	3
McCulloch	0	1	1	2
Nolan	0	1	0	1
Pecos	5	6	9	20
Presidio	0	1	0	1
Reagan	2	2	1	5
Reeves	0	1	3	4
Runnels	0	3	1	4
Schleicher	0	1	1	2
Scurry	0	0	2	2
Sutton	0	1	0	1
Taylor	1	2	0	3
Tom Green	1	1	0	2
Upton	2	2	16	20
Ward	12	10	27	49
Winkler	14	2	30	46
Yoakum	0	1	0	1
Total Sept.	70	64	162	296
Total Aug.	66	51	176	293
Difference	4	13	14	3

TEXAS PANHANDLE

Summary of Field Operations

County—	Comp.	Prod.	Abd.	Gas
Carson	4	931	0	1
Childress	1	0	1	0
Gray	42	17,218	0	0
Hartley	1	0	1	0
Hutchinson	19	6,899	1	1
Moore	1	0	0	1
Randall	1	0	1	0
Wheeler	11	14,425	1	2
Total Sept.	80	39,473	5	5
Total Aug.	86	58,336	4	7
Difference	6	18,863	1	2

Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Carson	3	1	10	14
Childress	1	1	1	3
Collingsworth	1	1	0	2
Gray	12	8	46	66
Hall	0	1	0	1
Hartley	0	0	1	1
Hutchinson	6	2	42	50
Moore	7	3	8	18
Ochiltree	1	0	0	1
Potter	2	0	0	2
Roberts	0	0	2	2
Wheeler	8	4	15	27
Total Sept.	41	21	125	187
Total Aug.	34	18	131	183
Difference	7	3	6	4

SOUTHWEST TEXAS

Summary of Field Operations

Field—	Comp.	Prod.	Abd.	Gas	Rgs.	Dig.	Ttl.
Baldwin	1	480	0	0	0	4	4
Barbacoas	1	0	1	0	0	0	0
Bateman	0	0	0	0	0	1	1
Bruni-Cole	4	1,340	1	0	0	2	2
Byersville	0	0	0	0	0	1	1
Caesar	5	1,270	0	0	1	1	2
Carolina-Texas	1	0	0	1	0	0	0
Carroll	0	0	0	0	0	1	1
Dinero	0	0	0	0	0	1	1
Dirks	13	4,020	2	0	1	2	3
Driscoll	0	0	0	0	0	2	2
Dunlap	3	50	1	0	0	3	3
Escobas	4	50	2	0	0	2	2
Fort Merrill	0	0	0	0	1	0	1
Gas Ridge	0	0	0	0	0	1	1
Govt. Wells	10	3,230	3	2	1	4	5
Hoffman	1	0	0	1	1	0	1
Hondo	0	0	0	0	0	1	1
Hords Creek	0	0	0	0	1	1	2
Jacob	2	160	0	0	0	1	1
Kimbro	1	40	0	0	0	0	0
Kingsville	0	0	0	0	1	0	1
Kohler	1	0	1	0	0	1	1
Labbe	0	0	0	0	0	2	2
Laurel	1	0	1	0	0	0	0
Loma Alto	1	0	1	0	0	0	0
Loma Novio	26	11,300	3	0	2	12	14
Lopena	0	0	0	0	0	1	1
Lopez	5	600	1	2	0	2	2
Lucas	2	0	2	0	1	0	1
McNeill	0	0	0	0	0	1	1
Mercedes	1	600	0	0	0	2	2
Mirando City	0	0	0	0	0	1	1
N. Lucas	1	0	1	0	0	0	0
O'Hern	14	9,920	0	0	0	3	3
Palo Blanco	0	0	0	0	0	1	1
Pettus	4	580	0	0	0	1	1
Placetas	1	0	1	0	0	0	0
Plymouth	9	2,240	0	0	1	9	10
Ray	4	1,540	0	0	0	3	3
Rio Grande City	5	150	2	0	1	0	1
Rutledge	1	0	1	0	0	2	2
Samfordyce	11	730	0	0	2	7	9
Saxet	14	5,110	1	1	1	8	9
Seven Sisters	7	3,790	1	0	1	4	5
S.W. Darst Creek	0	0	0	0	1	1	2
Three Rivers	0	0	0	0	0	1	1
Tuleta	0	0	0	0	1	3	4
Von Ormy	0	0	0	0	0	2	2
W. Tuleta	2	790	0	0	0	0	0
Misc.	34	1,060	26	2	5	80	85
Total Sept.	290	49,050	52	9	23	175	198
Total Aug.	159	25,490	60	6	26	160	186
Difference	131	23,560	8	3	3	5	12

WEST CENTRAL AND NORTH TEXAS

Summary of Field Operations

County—	Comp.	Prod.	Abd.	Gas
Archer	46	440	24	0
Baylor	30	17,234	3	0
Brown	2	10	1	0
Callahan	3	0	2	1
Clay	3	0	3	0
Coleman	2	0	2	0
Comanche	1	0	1	0
Cooke	26	2,388	6	0
Eastland	1	10	0	0
Foard	1	182	0	0

Jack	4	123	1	0
Montague	4	376	2	0
Palo Pinto	1	12	0	0
Shackelford	19	482	9	0
Throckmorton	2	0	2	0
Wichita	29	733	10	0
Wilbarger	5	265	3	0
Young	36	2,270	19	0
Total Sept.	215	24,519	88	1
Total Aug.	249	13,089	120	2
Difference	34	11,430	32	1

Rigs and Wells Drilling

County—	Rigs	S.D.	Drlg.	Ttl.
Archer	12	3	17	32
Baylor	1	0	7	8
Brown	1	4	3	8
Callahan	2	4	5	11
Clay	1	0	1	2
Coleman	0	5	6	11
Collin	1	0	1	2
Comanche	0	2	2	4
Cooke	8	4	19	31
Denton	0	3	2	5
Eastland	4	3	4	11
Erath	0	2	0	2
Foard	0	0	1	1
Hamilton	0	0	1	1
Haskell	1	2	0	3
Jack	5	5	4	14
Mills	0	0	1	1
Montague	2	2	10	14
Palo Pinto	0	1	1	2
Parker	0	3	0	3
Shackelford	4	4	10	18
Stephens	1	1	0	2
Tarrant	0	1	0	1
Throckmorton	0	0	3	3
Wichita	5	6	11	22
Wilbarger	0	1	4	5
Wise	0	1	0	1
Young	18	6	21	45
Total Sept.	66	63	134	263
Total Aug.	50	49	163	262
Difference	16	14	29	1

EAST TEXAS

Summary of Wells Completed

County—	Comp.	Prod.	Abd.	Gas
Anderson	7	316	2	1
Angelina	4	0	4	0
Fannin	1	0	1	0
Gregg	70	2,605	4	0
Henderson	1	95	0	0
Leon	1	0	0	1
Limestone	1	0	1	0
Rusk	99	4,529	4	0
Smith	34	1,509	1	0
Upshur	22	749	1	0
Van Zandt	3	238	0	0
Wood	1	0	1	0
Total September	244	10,041	19	2
Total August	352	16,341	39	1
Difference	108	6,300	20	1

SUMMARY OF RIGS AND WELLS DRILLING

County—	Rigs	S.D.	Drlg.	Ttl.
Anderson	1	0	2	3
Angelina	0	3	3	6
Bowie	0	1	0	1
Cherokee	0	1	1	2
Ellis	0	1	0	1
Falls	0	1	0	1
Fannin	0	1	1	2
Freestone	0	1	1	2
Gregg	36	13	30	79
Henderson	1	0	2	3
Hopkins	0	1	0	1
Hunt	0	0	1	1
Kaufman	0	1	1	2
Lamar	0	0	2	2
Leon	0	0	1	1
Limestone	0	0	2	2
McLennan	1	1	0	2
Nacogdoches	0	1	0	1
Navarro	0	1	1	2
Rains	3	0	0	3
Red River	4	0	0	4
Rockwall	1	0	0	1
Rusk	31	8	65	104
Smith	9	0	10	19
Titus	1	0	0	1
Upshur	10	4	14	28
Van Zandt	0	3	3	6
Total September	98	42	140	280
Total August	105	26	145	276
Difference	7	16	5	4

LOUISIANA-ARKANSAS

North Louisiana

Summary of Field Operations

	Comp.	Prod.	Dry	Gas*	Rgs.	Dig.	Ttl.
Avoyelles	0	0	0	0	1	0	1
Bienville	1	0	1	0	0	0	0
Bossier	2	0	2	0	1	7	8
Caddo	9	27,205	2	2	14	31	45
Caldwell	1	0	1	0	0	3	3
Catahoula	0	0	0	0	1	1	2
Claiborne	0	0	0	0	2	1	3
DeSoto	1	10	0	0	1	10	11
Grant	0	0	0	0	0	1	1
LaSalle	2	30	0	0	0	0	0
Lincoln	0	0	0	0	0	1	1
Madison	0	0	0	0	0	1	1
Morehouse	2	0	1	1	0	1	1
Natchitoches	0	0	0	0	0	2	2
Ouachita	9	0	0	9	5	3	8
Rapides	0	0	0	0	0	1	1
Red River	0	0	0	0	0	1	1
Sabine	5	105	3	0	8	7	15
Union	2	0	0	2	2	1	3
Webster	0	0	0	0	1	1	2
Winn	0	0	0	0	0	1	1
Ttl. Sept.	34	27,350	10	14	36	74	110
Ttl. Aug.	30	6,868	15	8	26	85	111
Difference	4	20,482	5	6	10	11	1

*Gas production: Caddo, 21,500,000 feet; Morehouse, 9,500,000 feet; Ouachita, 25,750,000 feet; Union 11,500,000 feet; total, 68,250,000 feet.

Arkansas

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Arkansas	0	0	0	0	0	1	1
Ashley	1	0	1	0	1	3	3
Calhoun	1	0	1	0	0	0	0
Columbia	0	0	0	0	0	2	2
Dallas	0	0	0	0	0	1	1
Hempstead	1	0	1	0	2	0	2
Lafayette	0	0	0	0	3	4	7
Miller	2	120	1	0	2	4	6
Nevada	0	0	0	0	0	1	1
Ouachita	0	0	0	0	1	2	3
Poinsett	0	0	0	0	0	1	1
St. Francis	0	0	0	0	0	1	1
Sevier	1	0	1	0	1	0	1
Union	2	190	1	0	1	8	9
Ttl. Sept.	8	310	6	0	11	27	38
Ttl. Aug.	7	845	5	0	8	29	37
Difference	1	535	1	0	3	2	1

East Texas (Border Counties)

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Cass	0	0	0	0	5	0	5
Harrison	0	0	0	0	3	3	6
Marion	0	0	0	0	2	2	4
Panola	0	0	0	0	2	5	7
Shelby	0	0	0	0	1	2	3
Ttl. Sept.	0	0	0	0	13	12	25
Ttl. Aug.	1	0	1	0	13	12	25
Difference	1	0	1	0	0	0	0

Mississippi

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Amite	1	0	1	0	0	0	0
Bolivar	0	0	0	0	0	1	1
Clarke	0	0	0	0	1	1	2
Greene	0	0	0	0	0	1	1
Grenada	1	0	1	0	0	0	0
Harrison	0	0	0	0	0	1	1
Lauderdale	0	0	0	0	0	1	1
Lafayette	0	0	0	0	0	1	1
Monroe	2	0	2	0	0	0	0
Simpson	1	0	1	0	0	0	0
Warren	0	0	0	0	0	1	1
Washington	0	0	0	0	0	1	1
Winston	0	0	0	0	0	1	1
Ttl. Sept.	5	0	5	0	1	9	10
Ttl. Aug.	2	0	2	0	2	12	14
Difference	3	0	3	0	1	3	4

Alabama

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Covington	1	0	1	0	0	0	0
Houston	0	0	0	0	0	1	1
Lamar	0	0	0	0	0	1	1
Mobile	0	0	0	0	0	1	1
Ttl. Sept.	1	0	1	0	0	3	3
Ttl. Aug.	1	0	1	0	0	4	4
Difference	0	0	0	0	0	1	1

Florida

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Lake	0	0	0	0	0	1	1
Total	0	0	0	0	0	1	1

ROCKY MOUNTAIN AREA

Colorado

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Adams	0	0	0	0	1	1	2
Archuleta	1	0	1	0	0	3	3
Grand	0	0	0	0	0	2	2
Huerfano	0	0	0	0	0	3	3
Jackson	0	0	0	0	0	2	2
Larimer	0	0	0	0	0	2	2
Moffat	1	360	0	0	2	1	3
Misc.	0	0	0	0	1	13	14
Ttl. Sept.	2	360	1	0	4	27	31
Ttl. Aug.	1	175	0	0	3	30	33
Difference	1	185	1	0	1	3	2

Montana

Summary of Field Operations

	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Big Horn	0	0	0	0	0	2	2
Carbon	0	0	0	0	0	2	2
Fergus	0	0	0	0	0	4	4
Glacier	11	1,116	3	0	7	22	29
Hill	0	0	0	0	0	2	2
Liberty	1	10	0	0	0	1	1
Pondera	3	82	2	0	0	0	0
Rosebud	1	0	1	0	0	0	0
Toole	5	135	1	2	2	19	21
Misc.	0	0	0	0	1	4	5
Ttl. Sept.	21	1,343	8	2	10	56	66
Ttl. Aug.	32	2,178	6	4	14	56	70
Difference	11	835	2	2	4	0	4

Utah

Summary of Field Operations

Month—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Total Sept.	0	0	0	0	2	8	10
Total Aug.	1	0	0	1	2	8	10
Difference	1	0	0	1	0	0	0

Wyoming

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Albany	0	0	0	0	1	2	3
Big Horn	0	0	0	0	3	12	15
Carbon	1	0	1	0	0	8	8
Converse	1	0	1	0	0	6	6
Fremont	1	0	1	0	0	3	3
Hot Spgs.	1	150	0	0	1	3	4
Lincoln	0	0	0	0	0	3	3
Niobrara	1	2,200	0	0	3	8	11
Park	0	0	0	0	1	3	4
Sweetwater	4	87	0	1	1	1	2
Sublette	1	50	0	0	0	3	3
Uinta	0	0	0	0	0	2	2
Washakie	1	0	1	0	0	2	2
Weston	4	22	2	0	1	5	6
Misc.	0	0	0	0	0	2	2
Ttl. Sept.	15	2,509	6	1	11	64	75
Ttl. Aug.	13	4,513	3	0	12	71	83
Difference	2	2,004	3	1	1	7	8

New Mexico

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Lea	34	92,629	1	0	7	56	63
Eddy	2	3	1	0	0	10	10
Chaves	0	0	0	0	0	3	3
Quay	0	0	0	0	0	2	2
Roosevelt	1	0	1	0	0	1	1
Curry	0	0	0	0	0	1	1
Union	0	0	0	0	0	1	1
San Juan	3	37	0	0	0	11	11
San Miguel	0	0	0	0	0	3	3
Bernalillo	0	0	0	0	0	2	2
McKinley	0	0	0	0	2	1	3
Rio Arriba	0	0	0	0	1	0	1
Sandoval	0	0	0	0	0	1	1
Torrance	0	0	0	0	0	1	1
Valencia	2	0	2	0	0	3	3
Santa Fe	0	0	0	0	0	2	2
Guadalupe	0	0	0	0	0	1	1
Ttl. Sept.	42	92,669	5	0	10	99	109
Ttl. Aug.	40	47,420	11	1	12	105	117
Difference	2	45,249	6	1	2	6	8

EASTERN FIELDS

Summary of Field Operations

Field—	Comp.	Prod.	Dry	Gas
Bradford	147	125	0	0
Allegany	7	7	0	0
Venango-Clarion	39	68	0	2
Butler-Armstrong	6	20	2	0
Southwest Pennsylvania	10	10	1	6
Southeast Ohio	34	106	10	8
West Virginia	37	85	6	24
Total Sept.	280	421	19	40
Total Aug.	97	466	19	39
Difference	183	45	2	1

Rigs and Wells Drilling

Field—	Rigs	Dig.	Ttl.
Bradford	14	60	74
Allegany	0	6	6
Venango-Clarion	1	8	9
Butler-Armstrong	3	5	8
Southwest Pennsylvania	5	24	29
Southeast Ohio	14	40	54
West Virginia	27	81	108
Total Sept.	64	224	288
Total Aug.	49	153	202
Difference	15	71	86

LIMA FIELD

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Wood	1	2	0	0	0	3	3
Henry	0	0	0	0	0	2	2
Lucas	1	14	0	0	0	0	0
Allen	0	0	0	0	0	5	5
Auglaize	0	0	0	0	0	3	3
Darke	0	0	0	0	0	3	3
Ottawa	0	0	0	0	0	1	1
Hardin	0	0	0	0	0	1	1
Sandusky	0	0	0	0	0	2	2
Seneca	2	0	0	2	0	3	3
Wyandot	1	0	0	1	1	5	6
Total Sept.	5	16	0	2	1	28	29
Total Aug.	11	38	0	5	2	37	39
Difference	6	22	0	2	1	9	10

INDIANA

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Gibson	3	0	1	2	1	7	8
Pike	1	0	1	0	0	4	4
Knox	0	0	0	0	0	3	3
Decatur	0	0	0	0	0	3	3
Lawrence	1	0	1	0	0	1	1
Daviess	1	0	1	0	0	3	3
Cass	0	0	0	0	0	1	1
DeKalb	0	0	0	0	0	1	1
Jay	0	0	0	0	0	2	2
Martin	1	0	1	0	0	5	5
Knox	0	0	0	0	0	1	1
Spencer	7	30	4	0	0	7	7
Vanderburg	0	0	0	0	0	2	2
Sullivan	1	0	1	0	0	0	0
Dubois	1	0	0	1	0	2	2
Dearborn	0	0	0	0	0	1	1
Marion	1	0	0	1	0	0	0
Perry	0	0	0	0	0	4	4
Posey	1	0	1	0	0	2	2
Vigo	0	0	0	0	0	1	1
Total Sept.	18	30	11	4	1	50	51
Total Aug.	22	55	10	6	2	30	32
Difference	4	25	1	2	1	20	19

CENTRAL OHIO

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Ashland	2	0	0	2	1	6	7
Wayne	2	0	0	2	1	4	5
Cuyahoga	1	0	1	0	0	0	0
Lorain	0	0	0	0	1	5	6
Holmes	2	0	2	0	2	4	6
Richland	0	0	0	0	0	3	3
Tuscarawas	1	0	1	0	0	3	3
Summitt	0	0	0	0	3	4	7
Coshocton	0	0	0	0	1	4	5
Stark	1	0	0	1	1	18	19
Gallia	0	0	0	0	0	4	4
Scioto	0	0	0	0	0	1	1
Pike	0	0	0	0	0	2	2
Lawrence	0	0	0	0	1	3	4
Delaware	0	0	0	0	0	1	1
Perry	1	0	0	1	3	4	7
Total Sept.	10	0	4	6	14	66	80
Total Aug.	11	134	1	6	18	61	79
Difference	1	134	3	0	4	5	1

MICHIGAN

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Midland	7	1,265	0	0	15	28	43
Isabella	4	0	4	0	16	28	44
Ogemaw	3	318	0	0	18	13	31
Gladwyn	2	0	2	0	0	3	3
Eaton	0	0	0	0	0	1	1
Hillsdale	0	0	0	0	2	0	2
Lenawee	0	0	0	0	1	1	2
LaPeer	0	0	0	0	5	1	6
Bay	0	0	0	0	0	1	1
Roscommon	0	0	0	0	2	0	2
Mason	0	0	0	0	0	1	1
Clare	0	0	0	0	0	3	3
Chippewa	0	0	0	0	1	0	1
Clinton	0	0	0	0	1	0	1
Wexford	1	90	0	0	0	0	0
Mecosta	5	0	0	5	8	12	20
Montcalm	22	21,150	2	10	26	21	47
Total Sept.	44	22,823	8	15	95	113	208
Total Aug.	77	19,235	25	9	131	256	387
Difference	33	4,588	17	6	36	143	179

KENTUCKY

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Ohio	14	370	2	2	2	5	7
Hancock	2	110	0	0	0	2	2
Henderson	1	9	0	0	0	1	1
McLean	5	63	0	0	2	4	6
Total Sept.	22	552	2	2	4	12	16
Total Aug.	31	447	4	1	9	10	19
Difference	9	105	2	1	5	2	3

ILLINOIS

Summary of Field Operations

County—	Comp.	Prod.	Dry	Gas	Rgs.	Dig.	Ttl.
Clark	1	1	0	0	0	3	3
Crawford	0	0	0	0	0	4	4
Jasper	0	0	0	0	0	1	1
Total Sept.	1	1	0	0	0	8	8
Total Aug.	1	1	0	0	0	8	8
Difference	0	0	0	0	0	0	0

STOCKS HELD IN PACIFIC COAST TERRITORY BY CALIFORNIA OIL COMPANIES

	Aug. 31, 1935	July 31, 1935	Aug. changes	Aug. 31, 1934
Nongasoline-bearing crude, residuum, gas and Diesel oils	64,326,227	65,011,387	— 185,160	76,348,570
Gasoline-bearing crude	33,548,489	32,499,639	+1,048,850	36,281,340
Unblended natural gasoline	2,157,011	2,258,332	— 101,321	2,701,146
Gasoline (not including distributing and service stations)	8,937,355	8,787,430	— 749,575	12,317,462
Naphtha distillates	*1,347,242	*1,261,486	+ 85,756	*1,124,460
All other stocks	†8,691,574	†8,642,723	+ 48,851	†7,357,355
Total	118,608,398	118,460,997	+ 147,401	136,130,333
*Estimated amount of unfinished gasoline	948,906	954,664		882,901
†Coke	615,427	621,207		602,423

WILDCAT OPERATIONS

OKLAHOMA WILDCATS

Week Ending October 12

NORTHERN OKLAHOMA

Alfalfa County

Tex-O-Kan Oil Co.'s No. 1 Acre, C SW NE Sec. 14-24-11w.
T.D. 6,460 ft.; plugged back and drilling in new hole at 6,472 ft.

Beaver County

Anderson & Kerr et al's No. 1 School, C SW SE Sec. 36-5-26 (Cimarron Meridian).
Drlg. 1,590 ft.

Beckham County

G. E. Martin's No. 1 Hood, C NE NW Sec. 7-8-23w.
Drlg. 1,030 ft.

Star Oil Co.'s No. 1 Blair, C NW SE Sec. 32-9-26w.
Rig and tools.

Caddo County

Denver Prod. & Ref. Co.'s No. 1 Sah-Can, C SE SE Sec. 33-10-10w.
T.D. 6,330 ft.; salt wtr.; P.B. to 5,200 ft. and csg. collapsed; cemented at 6,600 ft.; drlg. 6,626 ft.

H. W. Lee et al's No. 1 Horton, NE cor. Sec. 9-6-13w.
Drlg. 750 ft.

H. W. Lee et al's No. 1 Stacey Ferrell, SW NE NE Sec. 3-6-13w.
Dry and abd. 2,506 ft.

F. A. Turner et al's No. 1 Spain, NE NE SW Sec. 1-5-11w
Hole full of water 3,112 ft.; T.D. 3,118 ft.; shut down for orders.

Cleveland County

Asa Lee Mayes, Inc.'s No. 1 Parsons, SW SW SE Sec. 30-9-1.
Rig.

Hall-Briscoe, Inc.'s No. 1 Fant, SW SW NE Sec. 27-10-2w.
T.D. 6,830 ft. in Hunton lime; cemented off 655 ft. of drill pipe; drlg. by.

Coal County

Carter Oil Co. et al's No. 1 Thompson, C S½ NE NW Sec. 34-2-9.
Woodford 5,630 ft.; Hunton 5,735 ft.; Sylvan 5,881 ft.; Viola 5,970 ft.; T.D. 5,985 ft.; reaming at 4,970 ft.

Comanche County

Oscar Jones' No. 1-A Scheets, NE SW Sec. 26-3-10w.
Rigged up.

McElreath & Suggett's No. 1 Spencer, SW cor. Sec. 21-3-10w.
Material on ground.

Garfield County

Ross Cummings et al's No. 1 Gage Est., SE NW Sec. 27-22-3w.
R.U. cable tools.

Herndon Drlg. Co. et al's No. 1 Whitaker, SE cor. Sec. 27-24-3w.
Drlg. 3,320 ft.

Earl McBride's No. 1 Gage, SE SE NW Sec. 27-22-3w.
Spudded.

Garvin County

Charles Carter and W. S. Key, Inc.'s No 1 Wood, NW SW SE Sec. 5-4-3e.
S.D. 2,445 ft.

Suggett & McElreath's No. 1 Camp, NE NE SE Sec. 22-4-1w.
Rigging up rotary.

Grady County

Sayre Oil Co.'s No. 1 Anderson, NE SE SE Sec. 26-4-6w.
Drlg. 755 ft.

Grant County

Helmerich & Payne's No. 1 Crouse, C NE SW Sec. 29-25-8w
Wilcox 6,615-29 ft.; dry; shut down 6,684 ft.

Shell Pet. Corp.'s No. 1 Foster, NW SE Sec. 36-27-8w.
Oswego 4,930 ft.; Mississippi lime 5,283 ft.; drlg. 5,358 ft.

Wentz Oil Corp. et al's No. 1 Wirtz (Community), SE SE NW Sec. 22-28-4w.
Mississippi lime 4,766 ft.; T.D. 4,894 ft.; rigging up rotary to drill out casing.

Vingling et al's No. 1 Allen, SW SE Sec. 16-26-4w.
Bldg. rig.

Greer County

H. N. Payne et al's No. 1 Trussell, NW cor. Sec. 1-7-22w.
T.D. 1,786 ft.; U.R. 8-in. csg.; to deepen; cleaning out.

Hughes County

Caprock Oil Co.'s No. 1 Parks, SW SW SE Sec. 34-7-8.
S.D. 360 ft.

Freeman et al's No. 1 Kite, NW NW NE Sec. 5-6-10.
Top sand 700 ft.; show oil; S.D.

Sivalls et al's No. 1 Montgomery, NW SW NW Sec. 7-9-9.
T.D. 930 ft.; waiting for fuel.

Texas Co.'s No. 1 Keaton, NW SW Sec. 4-8-10.
Set 8-in. csg. 3,950 ft.; shot 15 qts. 3,-885-4,038 ft.; acidized; 650 ft. oil and 1,-250 ft. water in hole; pulled 8-in. csg. and plugging back to 3,848 ft.; acidized with oil load, flowed 50 bbls. oil gross in one head, then "went dead."

Kay County

Lewis Prod. Co.'s No. 1 Hollenbeck, SE NE SE Sec. 18-27-2.
Hole full water 2,587-3,600 ft.; T.D. 3,-616 ft.

A. D. Morton's No. 1 Warren, SE SE NW Sec. 19-29-4.
Spudded.

Robinson Drlg. Co.'s No. 1 Hermes, SW SW NW Sec. 6-26-4.
Drlg. 3,558 ft.

Latimer County

McCraw et al's No. 1 Tidwell, C NW SE Sec. 17-3-22.
Set 15-in. pipe 377 ft.

Lincoln County

W. N. Anthony's No. 1 Fruin-Eckman, SE SE SW Sec. 4-16-1e.
Rigging up standard tools; T.D. 5,181 ft.; bailed at 300 ft.; small show of oil and water; shut down.

Chester L. Carlock's No. 1 Young, C N½ NW NW Sec. 23-15-5.
Spudded and S.D.

J. Garfield Buell et al's No. 1 Seward, NE NW NE Sec. 25-14-3.
Rigging up rotary.

Logan County

Sinclair Prairie and Slick-Urschel's No. 1 Koatsch, SW cor. Sec. 23-15-3w.
Second Wilcox 6,323-43 ft.; wtr.; P.B. to 6,204 ft. in Simpson; making 50 bbls. oil per day; S.I. for tanks.

Stanolind O. & G. Co., Amerada Pet. Corp. and Eason O. & R. Co.'s No. 1 Gragg, SW SW NE Sec. 26-18-4w.
T.D. 5,870 ft.; cemented off drill pipe; ran whipstock.

Texas Co. et al's No. 1 Wood, SW SW NE Sec. 34-15-4w.
Top Wilcox 6,394 ft.; T.D. 6,433 ft., fishing for drill pipe; plugged back to 5,-750 ft.

Noble County

Atlantic Oil Prod. Co. et al's No. 1 Strom, 640 ft. S and W NE cor. SE¼ Sec. 8-20-1w.
Hole full water; abandoned; T.D. 5,-297 ft.

Okfuskee County

W. J. Sherry et al's No. 1 Washington, SW SW NE Sec. 21-13-7.
Rig.

Stanolind and Amerada's No. 1-A Washington, SE NE NE Sec. 12-13-7.
Location.

Sunray Oil Co.'s No. 1 Culla, NE SW NE Sec. 13-12-8.
Hunton 3,985 ft.; set 6-in. csg. 3,986 ft.; T.D.

Oklahoma County

Sinclair Prairie O. & G. Co.'s No. 1 Corbett, NE NW NE Sec. 17-13-3w.
Wilcox sand 6,645-6,706 ft.; plugged back to 6,524 ft.; flowed 72½ bbls. gasoline in 15 hrs.; estimated 6,000,000 to 8,000,-000 ft. gas, hole bridged; running high pressure gas line to blow out bridge.

Osage County

J. A. Freeberg et al's No. 1, NE cor. SE Sec 1-25-6.
Mississippi lime 2,794 ft.; T.D. 2,850 ft.; cleaning out.

Pawnee County

Stanolind Oil & Gas Co.'s No. 1 Dentor, NE SW SE Sec. 32-22-3. (Old well drilling deeper).
Cored 4,300-17 ft., recovered portion slightly stained, shut down.

Pittsburgh County

Vaughn Production Co. et al's No. 1 Chunn, 990 ft. N and 614 ft. W of C Sec. 29-4-14.
Rigging up rotary.

Pontotoc County

Ada Petroleum Co.'s No. 1 Simmons, CWL NW NW Sec. 8-3-6.
Drlg. 3,781 ft.

E. M. Blanchard's No. 1 Crabtree, NE SE NE Sec. 27-3-6.
S.D. 2,920 ft.

Philip Boyle's No. 1 McCracken, NE NW NW Sec. 21-5-4.
T.D. 2,178 ft.; plugged back to 2,167 ft.; pumped salt wtr. with show of oil.

Charles E. Carter's No. 1 Wood, NW SW SE Sec. 5-4-3.
S.D. 2,405 ft.

Continental Oil Co.'s No. 1 McCarty, C SE NW Sec. 12-1-7e.
McLish 4,427 ft.; T.D. 4,446 ft.; gas blew tools up the hole; bridged; trying to kill gas and fishing for tools.

Delaney et al's No. 1 Fox, 1,337 ft. from N and 1,091 ft. from E lines of SE Sec. 2-1-7.
Cellar and Pits.

Franks Bros.' No. 1 Abbott, SW NW NE Sec. 34-3-6.
Rig.

Gillette & Kroeger's No. 1 Duver, NW NW SE Sec. 36-1n-6e.
T.D. 1,325 ft.; S.D.

Gypsy Oil Co.'s No. 1 Emry, SW SW NE Sec. 15-2-6.
Drlg. 703 ft.

McBride, Inc., et al's No. 1 Copeland, SE NW Sec. 21-4-5.
Viola 1,636 ft.; T.D. 1,950 ft.; sulphur water; underreaming 6-in. csg.

Orbit Oil Co.'s No. 1 Federal Land Bank, SE SW SW Sec. 10-4-3.
Rig.

Southern Oil Co.'s No. 1 Perry, SW SW NW Sec. 11-4-6.
Drlg. 1,890 ft.

Pottawatomie County

Ross Oil Co. et al's No. 1 Sparkman, SE NE Sec. 33-8n-4e.
Rig.

Seminole County

L. Cooper's No. 1 Chandler, NE SE SW Sec. 4-5-6.
S.D. 1,780 ft.

Deep Rock Oil Co.'s No. 1 Robert, SW NW NW Sec. 32-9-8.
Drlg. 1,620 ft.

Ray Dorris and J. T. Hall's No. 1 Dorris, SE SE SW Sec. 31-10-7.
Sand 520-60 ft.; H.F.W.; S.D. 608 ft.

Verser & Clay et al's No. 1 Thomas, NE SE NW Sec. 1-6-6.
S.D. at 3,030 ft.

Texas County

Cabot Carbon Co.'s No. 1 Mathews, C NW Sec. 3-3-15 (Cimarron Meridian).
Rigging up standard tools at 2,543 ft.

Washita County

L. P. McWhirter's No. 1 fee, SW cor. Sec. 24-8n-19w.
T.D. 1,015 ft.; waiting for csg.

SOUTHERN OKLAHOMA

Atoka County

L. O. Garner et al's No. 1 Garner, C NE NW NE Sec. 27-1n-15 (800-ft. test).
S.D. 825 ft.

Keaton et al's No. 1-A Roland, NE cor. NW NE NE Sec. 16-3s-10e.
T.D. 850 ft. (corrected); lime at 800-47 ft.; acidized; no results; shut down.

Malarnee et al's No. 2 D.O.K. land, C SE SE Sec. 35-2s-13.
T.D. (corrected) 3,136 ft.; cleaning out.

Mid-Continent Pet. Corp. et al's No. 1 Fulton, SW cor. Sec. 19-1s-12e.
T.D. 3,005 ft.; S.D. for orders.

R. H. Pierce et al's No. 1 Aetna Life Ins. Co., NW SW NE Sec. 10-1n-13e.
(Correction) drlg. 560 ft.

A. J. Sanders' No. 1 Redden, NE SW SW Sec. 19-1n-15e.
Drlg. 220 ft.

Vierson et al's No. 1 Williams, NE SW NW Sec. 34-2s-10.
T.D. 2,236 ft.; plugged back to 2,136 ft.

Bryan County

H. B. Smith et al's No. 1 Henry, C NW NE Sec. 10-8s-7e.
T.D. 285 ft., cleaning out.

Trio Oil Co.'s No. 1 Gilbert, SW NE SW Sec. 25-8s-7.
Dry and abd. 927 ft.

Carter County

Carter Oil Co.'s No. 1 Carter-Williams, SW NE SW Sec. 27-2s-3w.
T.D. 3,049 ft.; drill pipe parted.

Louis Sikes' No. 1 Byrd, SW SE SW Sec. 4-2s-2w.
S.D. at 20 ft.

Choctaw County

Rhodes et al's No. 1 Possumik Savings Bank, SW NW Sec. 1-5s-17.
Fishing tools at 605 ft.

Comanche County

F. F. Stevens' No. 1 Green, SE SE SW Sec. 2-1n-13w.
Drlg. 1,895 ft.

Jackson County

Associated Oil Co.'s No. 1 Harrell, NE NE SE Sec. 13-1s-21w.
S.D. 1,360 ft.

Gypsy Oil Co.'s No. 1 Stokes, SE NW SW Sec. 11-1-20w.
Lime 1,709-11 ft.; T.D. 1,722 ft.; S.D.

Triangle Oil Co.'s No. 1 Fox, E½ W½ NW Sec. 11-3n-20w.
S.D. 632 ft.

Jefferson County

M. H. Barrett's No. 1 Mose, C N½ NW SW Sec. 9-6s-7w.
Drlg. 400 ft.

Gypsy Oil Co.'s No. 1 James, SW SE SE Sec. 30-6s-6w.
S.D. 2,102 ft.

Johnston County

W. A. Delaney et al's No. 1 Diamond, NW NE SE Sec. 5-1s-8.
Drlg. 2,100 ft.

Equitable O. & G. Co.'s No. 1 Bellsey, NE SW Sec. 12-2s-4e.
Rig.

Franklin & Duncan's No. 1 Woolsey, NW NW SE Sec. 10-3s-6w.
Drlg. 1,000 ft.

Godfrey & Neff's No. 1 Everets, NE cor. SE SW SW Sec. 26-4s-6.
Drlg. 150 ft.

Love County

Sinclair Prairie Oil Co.'s No. 1 Stockton, SE SE SW Sec. 26-6s-2w (5,000-ft. test).
Drlg. 5,697 ft.

Marshall County

Jess Cook et al's No. 1 May, NE NW Sec. 12-8s-5.
Drlg. 75 ft.

Norman Smith's No. 1 Chestnut, NE cor. Sec. 23-8s-5e.
S.D. 275 ft.

Paul Robb's No. 1 Vittetoe, C NE SE Sec. 11-5s-4e.
Top Sylvan shale 5,405 ft.; T.D. 5,461 ft.; S.D.

Pushmataha County

C. W. Whitehead et al's No. 1 Misser, SE SW SW Sec. 35-3s-18e.
S.D. 3,420 ft.

Stephens County

Franklin & Duncan's No. 1 Woolsey, NW NW SE Sec. 10-3s-6w (old well deepening).
T.D. 1,050 ft.; pulled rig in.

Prince Bros.' No. 1-A Williams, C SW SE Sec. 19-2-8w.
Drlg. 725 ft.

Tillman County

J. B. Connelly's No. 1 McCord, NW SE NE Sec. 15-1-17w.
Drlg. 635 ft.

Gypsy Oil Co.'s No. 1 Schenck, SE NW SE Sec. 31-1s-18w.
Drlg. 950 ft.

Loper et al's No. 1 Conrad, NE cor. Sec. 35-1s-19w.
Drlg. in brown shale 1,660 ft.

KANSAS WILDCATS

Week Ending October 12

(Descriptions are East unless marked otherwise)

Barton County

Lario O. & G. Co. et al's No. 1 Peter, NW cor. Sec. 24-20-11w.
Siliceous 3,273-91 ft.; pumped 305 bbls. in 12 hrs.

Lario O. & G. Co. et al's No. 1 Smith, SW NW NW Sec. 26-18-13w.
Cellar.

C. L. Price et al's No. 1 Ehrlich, NW NW SE Sec. 10-16-13w.
Drlg. 3,345 ft.

Suppes & Witt's No. 1 Hayes, NW cor. Sec. 7-16-15w.
Drlg. 3,470 ft.

Torry & Feaster et al's No. 1 Kimpler, SE NE NE Sec. 31-18-11w.
Hole full water 3,530-34 ft.; abd.

Torry & Feaster's No. 1 Feist, NE NE SE Sec. 29-18-11w.
Siliceous lime 3,392-3,400 ft.; hole full water.

W. E. Witt's No. 1 Murry, NW NW SW Sec. 14-17-14w.
Spudded and S.D.

Butler County

Mohawk Oil Co.'s No. 1 Overstreet, NW cor. (Lot 21), Sec. 19-26-8.
K.C. lime 2,052 ft.; pay 2,058-67 ft.; estimated at 40 bbls. per day.

Palmer et al's No. 1 Ellis, NE cor. Sec. 7-25-4.
Drlg. 2,265 ft.

Western Kansas O. & R. Co.'s No. 1 King & Marshall, NW NW SW Sec. 11-28-6.
Siliceous lime 3,044-49 ft.; swabbed 75 bbls. oil in 24 hrs.

Cowley County

E. B. Shawver et al's No. 1 Hanna, NE NW SE Sec. 29-30-3.
Drlg. 1,775 ft.

T. C. Johnson's No. 1-A Ferguson, NW SW SE Sec. 17-30-3.
Drlg. 400 ft.

Wakefield et al's No. 1 Auman, SE SE NE Sec. 32-33-3.
Chat 3,338 ft.; 100 ft. oil in hole; water

at 3,348 ft.; P.B. to 3,338 ft.; shot 30 qts. and swabbed 35 bbls. and much water in 24 hrs.
Earl Wakefield's No. 1 Hanna, NE NE SW Sec. 2-31-4.
Drlg. 1,070 ft.
Winkler, Koch et al's No. 1-B Harlan, C NW NE Sec. 13-31-7.
Drlg. 1,400 ft.

Dickinson County

Dutch Oil Co.'s No. 1 Phillips, C NE NW Sec. 15-15-1e.
Drlg. 3,310 ft.

Ellis County

Helmerich & Payne et al's No. 1 Kuhn, C NE quarter Sec. 16-14-20w.
Lamotte sand 3,897 ft.; fishing at 3,900 ft.; shut down.
Palmer and Storm King Oil Co.'s No. 1 Bowlby, NE NW NW Sec. 13-11-16w.
K.C. lime 3,280 ft.; drlg. 3,285 ft.
P. G. Reynolds et al's No. 1 Walter, SE NE SW Sec. 2-12-18w.
Moving in material.
L. Roark et al's No. 1 Bemis, SE cor. Sec. 16-11-17w.
Pay 3,032-40 ft.; estimated at 100 bbls. per day.
Twin Drlg. Co.'s No. 1 Goetz, SW SW SE Sec. 3-14-17w.
Spudded and S.D.

Ellsworth County

Franco Central et al's No. 1 Frevert, SW cor. Sec. 8-17-10w.
Siliceous lime 3,320 ft.; T.D. 3,355 ft.; acidized; pumped 34 bbls. oil in 24 hrs.; reacidized 2,000 gallons; potential production 72 bbls. of oil and 24 bbls. water in 3 days; abandoned.
Gypsy Oil Co. and Texas Co.'s No. 1 Lapham, SW cor. Sec. 27-16-7w.
Set 13⅜-in. pipe 150 ft.; T.D. 162 ft.
Keith et al's No. 1 Schepman, SW SW NW Sec. 22-17-10w.
Hole full water 3,352-75 ft.; abd.
Lario O. & G. Co.'s No. 1 State, SW SW SW Sec. 29-15s-8w.
T.D. 3,937 ft.; P.B. 2,525 ft.; S.D.
Tom Palmer's No. 1 Splitter, NW NE SE Sec. 17-17-8w.
Drlg. 430 ft.
Slick, Pryor & Lockhart's No. 1 Sturn, NW NW SW Sec. 26-17-10w.
Rigging up.

Graham County

Cusco Oil Co.'s No. 1 Kaufman, C NE NE Sec. 18-6-24w.
Rigging up.
Helmerich & Payne et al's No. 1 Stites, C SW SW Sec. 8-10-22w.
Top Siliceous 4,196 ft.; T.D. 4,220 ft.; Dry; plugged back to 3,868 ft.; shot with 30 qts.
Vickers Pet. Co. & Phillips Pet. Co.'s No. 1 Hutton, 430 ft. W and 330 ft. S of NE SE Sec. 29-8-22w.
Drlg. 875 ft.

Haskell County

Helmerich & Payne's No. 1 Elliott, C SW Sec. 30-29-33w.
Rotary rig.

Kingman County

D. R. Lauck's No. 1 Skilling, SE NE SW Sec. 33-27-8w.
Drlg. 2,101 ft.

Logan County

Alma Pet. Co. and McNeely's No. 1 Watchorn, C SW NE Sec. 13-15-33w.
Drlg. 4,607 ft.

McPherson County

Anderson & Kerr's No. 1 Wernet, NW cor. Sec. 24-20-6w.
Mississippi lime 3,354 ft.; cleaning out 3,519 ft.
Brosius et al's No. 1 Hanson, NE NE SW Sec. 15-17-2w.
Abandoned at 1,108 ft.
Carey & Miller's No. 1 Husband, SE SE NW Sec. 6-19-3w.
Drlg. 3,275 ft.

Osage County

Jim Edwards' No. 1 Detrich, C NW SE Sec. 21-14-15.
Abandoned at 980 ft.

Pratt County

Shelly Oil Co. et al's No. 1 Comm. Gilchrist, C SE¼ Sec. 7-28-11w.
K.C. lime 3,595-3,605 ft.; will standardize.

Reno County

Allison & Fitzwilliams' No. 1 Dukelow, NE NE NE Sec. 11-22-6w.
Base Miss. lime 3,780 ft.; drlg. 3,917 ft.
Duwe & Dustin's No. 1 Ghormley, C NE NW Sec. 17-24-7w.
Spudded and shut down.
Foraker et al's No. 1 Hiett, SE SW NE Sec. 34-24-4w.
U.R. 12-in. csg. to 1,485 ft.
McPherson Drlg. Co. et al's No. 1 Miller, NE NW Sec. 34-24-5w.
Chat 3,402 ft.; swabbed 7½ bbls. fluid in 1½ hrs., 40 per cent water; T.D. 3,501 ft.
Shell Pet. Corp.'s No. 1 Reese, center W½ W½ SW¼ Sec. 11-26-9w.
Viola 4,128-56 ft.; bailing mud.
Stanolind & Amerada's No. 1 J. J. Hilger, A, NE NE SW Sec. 21-26-4w.
Set whipstock 3,832 ft.
Winkler & Koch et al's No. 1 Brownlee, SW cor. Sec. 31-24-10w.
Ponds.

Rice County

Aylward et al's No. 1 Haas, NE NW NE Sec. 4-19-10w.
Drlg. 3,250 ft.

Continental Oil Co.'s No. 1 Ferguson, SW NW NE Sec. 8-18-7w.
Siliceous lime 3,205-29 ft.; swabbed 15 bbls. oil, 4 bbls. water per hour.
Day's No. 1 Mason, NW NE NE Sec. 23-21-7w.
S.D. 2,690 ft.
Detrick et al's No. 1 Monroe C NE NE Sec. 9-20-7w.
Drlg. 890 ft.
Empire O. & R. Co.'s No. 1 Schroeder, SW SE SE Sec. 7-18-9w.
Shut down 270 ft.
James Davis' No. 1 Bernstorf, SE cor. Sec. 19-19-10w.
Drlg. 3,080 ft.
Detrick et al's No. 1 Conner, C NE NE Sec. 23-19-7w.
Fishing at 2,275 ft.
L. E. Douglas and Hutchinson O. & G. Co.'s No. 1 Hammell, NE NE NE Sec. 16-19-10w.
Siliceous 3,341-50 ft.; ⅓ bbl. oil per hour; acidized; no test.

Rooks County

El Dorado Refining Co.'s No. 1 Marshall, C SE SE Sec. 8-7-17w.
Drlg. 2,185 ft.
F. A. Gillespie & Sons' No. 1 Low, NE NE NW Sec. 12-6-18w.
Fishing 1,560 ft.
Murfin et al's No. 1 Washusin, NE NE SE Sec. 19-9-16w.
S.D. 1,300 ft.
Lario O. & G. Co. et al's No. 1 Fisher, NE cor. Sec. 22-10-18w.
Drlg. 3,390 ft.

Rush County

E. L. Byers et al's No. 1 Ewing, NW SW SW Sec. 35-19-15w.
Bldg. rig.
Darby Pet. Co.'s No. 1 Jacobs, SW SW NW Sec. 3-16-19w.
Location.
Ramsey Pet. Co. et al's No. 1 Darkes, C W½ W½ NW Sec. 5-17-20w.
Drlg. 3,724 ft.

Russell County

J. Brouk and R. D. Bailey's No. 1 Kleusner, NW NW SE Sec. 34-15-12w.
Siliceous 3,275-78 ft.; potential 392 bbls. in 18 hrs. net; 40.6 gravity; will retest.
Central Pet. Co.'s No. 1 Boxberger, NW cor. Sec. 36-15-15w.
Spudded and shut down.
Coralena Oil Co.'s No. 1 Berrick, NE NW NE Sec. 6-15-13w.
Oswald 2,894-2,928 ft.; T.D.; swabbed 65 bbls. oil in 6 hrs.; drlg. 2,935 ft.
Hartman & Blair's No. 1 Claussen, SE NE SW Sec. 34-12-14w.
Oswald 2,751 ft.; pay 2,796-2,800 ft.; T.D.; acidized; potential 112 bbls. of oil, 57 bbls. water; drlg. 2,850 ft.
T. C. Johnson et al's No. 1 Mermis, NE NE SW Sec. 29-13-15w.
Drlg. 880 ft.
Murfin et al's No. 1 Gorham estate, NE NE SE Sec. 29-14-15w.
Moving in machine.
Nassau Oil Corp.'s No. 1 Karst, NW SW NE Sec. 27-15-14w.
Siliceous 3,315-18 ft.; T.D.; 1,600 ft. of oil in hole in 5 hrs.; no test.
Roth & Faurot's No. 1 Shaffer, C NW NE Sec. 31-13-12w.
Oswald at 2,965-81 ft.; 800 ft. of oil in hole; bailer did not lower fluid level; deepened to 3,002 ft., T.D.; salt water; P.B. to 3,000 ft.; acidized; potential 236 bbls. of oil, 15 bbls. water; will retest.

Sedgwick County

Derby et al's No. 1 Bartholomew, SW NW NW Sec. 8-27-4w.
Siliceous 4,137 ft.; T.D. 4,155 ft.; water; P.B. 4,006 ft. and drilled to 4,017 ft.; acidized; no test.
Dickey Oil Co. et al's No. 1 Chase, SE cor. Sec. 11-27-2.
Siliceous 3,262-79 ft.; pumped 35 bbls. oil, 5 bbls. water in 9 hrs.

Stafford County

Atlantic Oil Producing Co., Phillips Petroleum Co. et al's No. 1 Brown C NW NE Sec. 16-23-13w.
Drlg. 1,766 ft.
Atlantic Oil Prod. Co. and Phillips Pet. Co.'s No. 1 Cornwall, C NE SW Sec. 4-25-13w.
Cored 4,072-82 ft.

Sumner County

D. J. Wilson et al's No. 1 Clark, 1,320 ft. from W and 25 ft. from S line of NW Sec. 15-35-1w.
Drlg. 2,190 ft.
Winkler & Koch et al's No. 1 Belsley, SW SW NW Sec. 2-32-2w.
Drlg. 4,201 ft.

Trego County

Central Commercial's No. 1 Wagg, NW NW SE Sec. 17-13-21w.
Ran 15-in. csg. to 579 ft.
Hansa & Lauck and Olson Drlg. Co.'s No. 1 Lang, SE SE NW Sec. 1-14-21w.
U.R. 6-in. csg. to 3,829 ft.
Vickers et al's No. 1 Secor, NW NW NW Sec. 26-15-24w.
T.D. 4,225 ft.; showing ½ bbl. oil.

Woodson County

Coulter, Davidson et al's No. 1 Paske, NW SE Sec. 25-25-13.
Drlg. 1,340 ft.
Saco Oil Co.'s No. 1- Hassenpflug, SW NW NE Sec. 34-25-14.
Pay 1,370-1,609 ft.; shot with 100 qts.; 45 bbls. in 24 hrs.; completed.

IMPORTANT NORTHERN CALIFORNIA WILDCATS

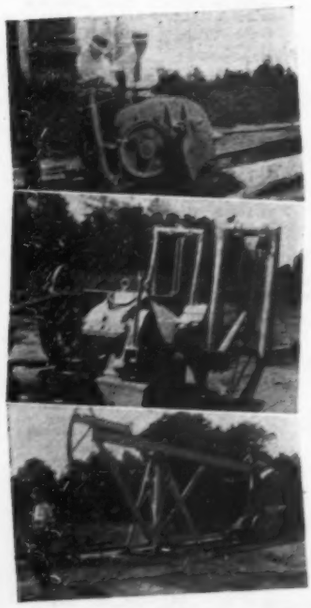
Company, well and location—	S.	T.	R.	Depth	Status—
Shell Oil Co., No. 6 Capitan, Santa Barbara Co.	5-	4-	30	1,305	cleaning out
Shell Oil Co., No. 8 Capitan, Santa Barbara Co.	5-	4-	30	1,660	sd. sh. drlg.
Shell Oil Co., No. 9 Capitan, Santa Barbara Co.	5-	4-	30	2,193	cmtd. 2,489
General Petroleum, No. 15 Capitan, Santa Barbara Co.	32-	5-	30	323	suspended
Shell Oil Co., No. 1 Goleta, Santa Barbara Co.	10-	4-	29	2,977	dry, abd.
Shell Oil Co., No. 2 Goleta, Santa Barbara Co.	10-	4-	29	....	rigging up
Honolua Oil Corp., No. 9 Elwood, Santa Barbara Co.	tideland			4,176	gr. sd. drlg.
Barnsdall-Rio Grande, No. 12 Elwood, Santa Barbara	tideland			6,703	fish. D.P.
Barnsdall-Rio Grande, No. 18 Elwood, Santa Barbara	tideland			3,676	cleaning out
Barnsdall-Rio Grande, No. 2 Elwood, Santa Barbara.	15-	4-	29	6,492	P.B. 3,836
Bankline Oil Co., No. 10 Elwood, Santa Barbara Co.	tideland			3,835	redrlg. 2,620
Spalding, Caroline, No. 11 Elwood, Santa Barbara Co.	tideland			3,570	O.S. drlg.
Pacific Western, No. 16 Elwood, Santa Barbara Co.	tideland			....	bldg. rig
Union Oil Co., No. 4 Santa Maria, Santa Barbara Co.	16-	10-	34	3,319	fishing
Field, O. C., No. 1 Santa Maria, Santa Barbara Co.	28-	10-	33	....	rig; suspended
Freeman, M. J., No. 1 Purisima, Santa Barbara Co.	11-	7-	33	1,276	suspended
Mar Monte Oil Co., No. 1 Summerland, Santa Barbara	16-	4-	26	....	rigging up
Santa Barbara Oil Co., No. 1 Carpinteria, S. Barbara	29-	4-	25	....	rig, cable tools
Dietzman, Julius, No. 1 Carpinteria, Santa Barbara	8-	4-	25	....	rigging up
Las Posas Pet., No. 1 Las Posas, Ventura Co.	22-	3-	20	8,116	P.B. 6,400
Union Oil Co., No. 1 Bardsdale, Ventura Co.	13-	3-	20	4,491	sd. sh. drlg.
Monticello Oil Co., No. 1 Bardsdale, Ventura Co.	13-	3-	20	3,532	gr. sd. drlg.
The Texas Co., No. 1 Fillmore, Ventura Co.	29-	4-	19	4,190	hd. sd. drlg.
Bankline Oil Co., No. 1 South Mountain, Ventura Co.	3-	3-	19	3,164	hd. sd. drlg.
The Texas Oil Co., No. 1 South Mountain, Ventura Co.	4-	3-	19	7,423	P.B. 4,162
Hull, James, No. 1 Susana, Ventura Co.	2-	2-	18	865	sd. sh. drlg.
Ventura Expl. Co., No. 1 Saticoy, Ventura Co.	30-	3-	22	6,498	hd. sd. drlg.
Prop. Service Corp., No. 1 Lloyd, Ventura Co.	24-	3-	23	9,597	sd. sh. drlg.
General Pet., No. 1 Oxnard, Ventura Co.	26-	2-	23	7,197	sd. sh. drlg.
Continental Oil Co., No. 4 San Miguelito, Ventura Co.	23-	3-	24	6,949	flow. 1,575 b.d.
Continental Oil Co., No. 5 San Miguelito, Ventura Co.	15-	3-	24	....	grading
C. C. M. Oil Co., No. 1 San Miguelito, Ventura Co.	23-	3-	24	7,906	swabbing
Standard Oil Co., No. 1 Lost Hills, Kern Co.	2-	26-	20	5,842	cleaning out
Cumberland Oil Co., No. 1 Devil's Den, Kern Co.	17-	26-	18	3,331	hd. sh. drlg.
Belmac Drlg. Co., No. 1 McKittrick, Kern Co.	22-	29-	21	3,800	br. sh. drlg.
Belmac Drlg. Co., No. 2 McKittrick, Kern Co.	21-	29-	21	85	suspended
Big McKittrick Oil Co., No. 1 McKittrick, Kern Co.	30-	30-	22	622	suspended
Bering, R. E., No. 1 McDonald, Kern Co.	12-	28-	19	....	rigging up
General Pet. Co., No. 1 South Belridge, Kern Co.	30-	28-	21	11,377	suspended
Standard Oil Co., No. 2 North Belridge, Kern Co.	36-	27-	20	8,501	will recmt.
Staniard Oil Co., No. 3 North Belridge, Kern Co.	36-	27-	20	6,700	br. sh. drlg.
Belridge Oil Co., No. 33-35 North Belridge, Kern Co.	35-	27-	20	8,241	O.S. drlg.
Belridge Oil Co., No. 33-35 North Belridge, Kern Co.	35-	27-	20	7,863	cmtd. 7,802
Continental Oil Co., No. 6 North Belridge, Kern Co.	36-	27-	20	6,720	hd. sh. drlg.
Union Oil Co., No. 19 North Belridge, Kern Co.	36-	27-	20	7,797	br. sh. drlg.
Union Oil Co., No. 20 North Belridge, Kern Co.	36-	27-	20	7,752	br. sh. drlg.
Ohio Oil Co., No. 1 Maricopa Flats, Kern Co.	11-	11-	22	4,960	sd. sh. drlg.
Woods & Bailey, No. 1 McFarland, Kern Co.	16-	26-	26	2,365	sd. sh. drlg.
Standard Oil Co., No. 1 Delano, Kern Co.	1-	25-	22	2,455	gas, shut in
Standard Oil Co., No. 2 Delano, Kern Co.	1-	25-	23	3,256	gas, shut in
Standard Oil Co., No. 4 Delano, Kern Co.	34-	24-	23	2,460	gas, shut in
Standard Oil Co., No. 5 Delano, Tulare Co.	33-	24-	23	....	rig; suspended
Trico Oil & Gas Co., No. 1 Delano, Kern Co.	3-	26-	23	2,525	gas; shut in
Trico Oil & Gas Co., No. 3 Delano, Kern Co.	36-	24-	22	4,835	suspended
Trico Oil & Gas Co., No. 5 Delano, Kern Co.	3-	25-	23	2,467	gas; shut in
Richardson & Heaston, No. 1 Kern Front, Kern Co.	5-	28-	28	1,900	hd. sh. drlg.
McDonald & Deavin, No. 1 Kern Front, Kern Co.	10-	28-	27	231	suspended
National Oil Co., No. 1 Kern Front, Kern Co.	11-	28-	27	1,630	O.S. drlg.
Kern River Oilfields, No. 5 Kern Front, Kern Co.	25-	28-	27	2,222	P.B. 2,090
Associated Oil Co., No. 5 Kern Front, Kern Co.	4-	28-	27	2,110	sd. sh. drlg.
Associated Oil Co., No. 6 Kern Front, Kern Co.	4-	28-	27	....	rig; suspended
C. C. M. Oil Co., No. 7 Kern Front, Kern Co.	23-	28-	27	2,100	rig to pump
C. C. M. Oil Co., No. 8 Kern Front, Kern Co.	23-	28-	27	....	rig; suspended
Bishop Oil Co., No. 2 Kern Front, Kern Co.	26-	28-	27	2,145	pump. 197 b.d.
Republic Petroleum, No. 6 Kern Front, Kern Co.	24-	28-	27	....	location
Standard Oil Co., No. 3 Kern Front, Kern Co.	5-	28-	27	2,690	pump. 70 b.d.
Standard Oil Co., No. 4 Kern Front, Kern Co.	5-	28-	27	2,625	rig. to pump
Standard Oil Co., No. 5 Kern Front, Kern Co.	5-	28-	27	1,631	sd. sh. drlg.
Barnsdall Oil Co., No. 5 Mountain View, Kern Co.	32-	30-	29	760	sd. sh. drlg.
Barnsdall Oil Co., No. 6 Mountain View, Kern Co.	30-	30-	29	6,147	flow. 1,190 b.d.
Canal Oil Co., No. 1 Mountain View, Kern Co.	30-	30-	29	5,191	redrlg. 4,198
C. C. M. Oil Co., No. 1 Mountain View, Kern Co.	11-	30-	28	6,606	dry; abd.
Hancock Oil Co., No. 8 Mountain View, Kern Co.	14-	30-	28	3,496	sd. sh. drlg.
Hancock Oil Co., No. 9 Mountain View, Kern Co.	14-	30-	28	....	rig; suspended
Hogan Pet. Co., No. 6 Mountain View, Kern Co.	29-	30-	29	5,621	O.S. drlg.
Hogan Pet. Co., No. 7 Mountain View, Kern Co.	4-	31-	29	3,170	sd. sh. drlg.
Hogan, Dana, No. 1 Mountain View, Kern Co.	32-	30-	29	5,971	reaming
National Oil Co., No. 1 Mountain View, Kern Co.	30-	30-	29	5,878	cmtd. 4,422
O'Kane & Brain, No. 2 Mountain View, Kern Co.	30-	30-	29	....	bldg. rig
Mohawk Oil Co., No. 13 Mountain View, Kern Co.	30-	30-	29	5,470	test W.S.O.
Mohawk Oil Co., No. 14 Mountain View, Kern Co.	30-	30-	29	3,881	sd. sh. drlg.
Mohawk Oil Co., No. 15 Mountain View, Kern Co.	30-	30-	29	....	rigging up
Ohio Oil Co., No. 1 Mountain View, Kern Co.	33-	30-	29	5,999	redrlg. 1,965
Shell Oil Co., No. 5 Mountain View, Kern Co.	32-	30-	29	....	bldg. rig
Hoyt, Otis, No. 1 Mountain View, Kern Co.	19-	30-	29	5,904	suspended
Standard Oil Co., No. 12 Mountain View, Kern Co.	24-	30-	28	5,200	P.B. 5,109
Standard Oil Co., No. 13 Mountain View, Kern Co.	23-	30-	28	5,512	cmtd. 5,478
Standard Oil Co., No. 14 Mountain View, Kern Co.	24-	30-	28	2,881	sd. sh. drlg.
Standard Oil Co., No. 15 Mountain View, Kern Co.	13-	30-	28	....	rig; suspended
Wood-Callahan Oil Co., No. 1 Mountain View, Kern	25-	30-	28	6,029	flow. 487 b.d.
Mountain View Oil Co., No. 1 Mountain View, Kern	25-	30-	28	5,650	cmtd. 5,120
Jergins Trust, No. 5 Mountain View, Kern Co.	24-	30-	28	5,761	cleaning out
Jergins Trust, No. 6 Mountain View, Kern Co.	30-	30-	29	1,652	sd. sh. drlg.
United Expl. Co., No. 1 Bakersfield, Kern Co.	23-	30-	27	3,754	suspended
Standard Oil Co., No. 1 Round Mountain, Kern Co.	3-	29-	29	....	grading
Jergins Trust, No. 10 Edison, Kern Co.	13-	30-	29	1,473	cmtd. 1,100
Jergins Trust, No. 11 Edison, Kern Co.	13-	30-	29	375	sd. sh. drlg.
Jergins Trust, No. 12 Edison, Kern Co.	13-	30-	29	....	bldg. rig
Shell Oil Co., No. 9 Edison, Kern Co.	16-	30-	29	3,101	cleaning out
Rogers & Osborne, No. 1 Edison, Kern Co.	19-	30-	30	553	sd. sh. drlg.
Crandall, Roy, No. 1 Edison, Kern Co.	18-	30-	30	....	rig; suspended
General Pet., No. 7 Edison, Kern Co.	14-	30-	29	1,885	suspended
General Pet., No. 8 Edison, Kern Co.	24-	30-	29	498	sd. sh. drlg.
General Pet., No. 9 Edison, Kern Co.	24-	30-	29	1,329	pump. 530 b.d.
General Pet., No. 10 Edison, Kern Co.	24-	30-	29	....	rig; suspended
General Pet., No. 11 Edison, Kern Co.	10-	30-	29	....	bldg; rig
Appling, C. E., No. 1 Edison, Kern Co.	4-	30-	29	3,625	suspended
Bauer, J. H., No. 1 Edison, Kern Co.	21-	30-	29	2,851	sd. sh. drlg.
Seeple, J. O., No. 1 Elk Hills, Kern Co.	5-	30-	24	5,268	suspended
General Pet., No. 1 Arvin, Kern Co.	1-	32-	29	8,498	sd. sh. drlg.
Hall-Baker Co., No. 1 Arvin, Kern Co.	16-	31-	30	1,276	suspended
Hall-Baker Co., No. 4 Arvin, Kern Co.	20-	31-	30	831	sd. sh. drlg.
Hutcheson & Osborne, No. 2 Arvin, Kern Co.	32-	30-	30	681	sd. sh. drlg.
Arlington Prop., No. 1 Buttonwillow, Kern Co.	6-	28-	23	3,235	gas; shut in
Milham Exploration Co., No. 5 Buttonwillow, Kern Co.	5-	28-	23	3,127	8,280 m.c.f.
The Texas Co., No. 1 Buttonwillow, Kern Co.	6-	28-	23	2,435	gas; shut in
The Texas Co., No. 2 Buttonwillow, Kern Co.	8-	28-	23	2,475	gas; shut in
Superior Oil Co., No. 1 Semi-Tropic, Kern Co.	23-	27-	23	2,418	gas; shut in
Superior Oil Co., No. 2 Semi-Tropic, Kern Co.	34-	27-	24	4,065	sd. sh. drlg.
Fullerton Oil Co., No. 1 Semi-Tropic, Kern Co.	1-	27-	22	2,391	gas; shut in
Fullerton Oil Co., No. 2 Semi-Tropic, Kern Co.	14-	27-	23	2,463	gas; shut in
Fullerton Oil Co., No. 3 Semi-Tropic, Kern Co.	9-	27-	23	2,150	gas; shut in
Fullerton Oil Co., No. 4 Semi-Tropic, Kern Co.	26-	27-	23	2,395	gas; shut in
Fullerton Oil Co., No. 5 Semi-Tropic, Kern Co.	8-	27-	23	2,347	gas; shut in
Fullerton Oil Co., No. 6 Semi-Tropic, Kern Co.	25-	27-	23	2,441	gas; shut in
Fullerton Oil Co., No. 7 Semi-Tropic, Kern Co.	25-	27-	23	2,437	gas; shut in
Fullerton Oil Co., No. 8 Semi-Tropic, Kern Co.	25-	27-	23	....	grade
Fullerton Oil Co., No. 9 Semi-Tropic, Kern Co.	26-	27-	23	2,431	gas; shut in
Fullerton Oil Co., No. 10 Semi-Tropic, Kern Co.	15-	27-	23	2,414	gas; shut in
Fullerton Oil Co., No. 12 Semi-Tropic, Kern Co.	22-	27-	23	4,036	sd. sh. drlg.
Fullerton Oil Co., No. 13 Semi-Tropic, Kern Co.	22-	27-	23	....	rig; suspended
Standard Oil Co., No. 1 Semi-Tropic, Kern Co.	8-	27-	23	3,200	gas; shut in
Standard Oil Co., No. 2 Semi-Tropic, Kern Co.	5-	27-	23	5,698	dry; abd.

Standard Oil Co., No. 3 Semi-Tropic, Kern Co.	7-27-23	2,355	gas; shut in
Standard Oil Co., No. 4 Semi-Tropic, Kern Co.	9-27-23	4,452	sd. sh. drlg.
Standard Oil Co., No. 5 Semi-Tropic, Kern Co.	9-27-23	4,250	dry; abd.
Standard Oil Co., No. 6 Semi-Tropic, Kern Co.	8-27-23	2,361	gas; shut in
Standard Oil Co., No. 7 Semi-Tropic, Kern Co.	1-27-23	3,676	redrlg. 3,300
Standard Oil Co., No. 8 Semi-Tropic, Kern Co.	12-27-22	2,426	gas; shut in
Standard Oil Co., No. 9 Semi-Tropic, Kern Co.	1-27-23	....	foundation
Standard Oil Co., No. 10 Semi-Tropic, Kern Co.	17-27-23	4,561	tested wet
Standard Oil Co., No. 11 Semi-Tropic, Kern Co.	20-27-24	3,590	deep test
Standard Oil Co., No. 12 Semi-Tropic, Kern Co.	30-27-24	3,800	sd. sh. drlg.
Standard Oil Co., No. 13 Semi-Tropic, Kern Co.	6-27-23	2,408	gas; shut in
Standard Oil Co., No. 14 Semi-Tropic, Kern Co.	36-27-23	....	rigging up
Standard Oil Co., No. 15 Semi-Tropic, Kern Co.	16-27-23	1,197	sd. sh. drlg.
Standard Oil Co., No. 16 Semi-Tropic, Kern Co.	14-27-23	2,597	sd. sh. drlg.
Standard Oil Co., No. 17 Semi-Tropic, Kern Co.	16-27-23	....	rigging up
Milham Expl. Co., No. 1 Semi-Tropic, Kern Co.	15-27-23	3,122	gas; shut in
Milham Expl. Co., No. 2 Semi-Tropic, Kern Co.	15-27-23	2,429	gas; shut in
Milham Expl. Co., No. 3 Semi-Tropic, Kern Co.	15-27-23	2,385	gas; shut in
Milham Expl. Co., No. 4 Semi-Tropic, Kern Co.	24-27-23	1,465	sd. sh. drlg.
Comanche Oil Co., No. 1 Comanche, Kern Co.	15-32-29	4,575	deepening
Tejon Ridge Oil Co., No. 1 Comanche, Kern Co.	23-32-29	2,187	cleaning out
Shell Oil Co., No. 1 Buena Vista, Kern Co.	9-32-25	9,083	suspended
Ohio Oil Co., No. 3 Buena, Vista, Kern Co.	31-31-26	1,262	sd. sh. drlg.
Silver Gate Oil & Gas Co., No. 1 Tejon, Kern Co.	7-10-19	2,251	gr. sd. drlg.
Taft Well Drlg. Co., No. 1 Kreyenhagen, Fresno Co.	33-22-16	4,765	sd. sh. drlg.
Pacific Expl. Co., No. 1 Kreyenhagen, Fresno Co.	17-21-17	1,410	suspended
Union Oil Co., No. 1 Lillis-Kettleman, Fresno Co.	24-21-16	10,944	redrlg. 9,349
K. N. D. A., No. 54 Kettleman North, Fresno Co.	24-21-16	8,376	hd. sd. drlg.
Standard Oil Co., No. 2 Kettleman Middle, Kings Co.	29-23-19	7,885	cleaning out
Pet. Sec., No. 1 Kettleman Middle, Kings Co.	30-23-19	5,795	br. sh. drlg.
Continental Oil Co., No. 1 Kettleman South, Kern Co.	7-25-20	7,849	cmtd. 7,766
Farrel Pet., well No. 1, San Luis Obispo Co.	18-31-12	1,890	sd. sh. drlg.
Willett Oil Co., No. 1 Cholame, San Luis Obispo Co.	10-25-15	5,687	suspended
Milham Expl. Co., No. 1 Tulare Lake, Kings Co.	5-22-19	....	location
Commonwealth Consd. Gas, No. 1 Tulare Lake, Kings	21-22-20	2,490	gas; shut in
Commonwealth Consd. Gas, No. 2 Tulare Lake, Kings	21-22-20	1,102	sd. sh. drlg.
Dudley Ridge Dev. Co., No. 1 Dudley Ridge, Kings Co.	24-23-20	1,300	suspended
Amerada Pet., No. 1 F.L.D., San Joaquin Co.	15- 2- 5	7,900	hd. sh. drlg.
Amerada Pet., No. 2 F.L.D., San Joaquin Co.	15- 2- 5	4,063	producing gas
Amerada Pet., No. 3 F.L.D., San Joaquin Co.	22- 2- 5	3,685	flow 45,000 m.f.
Pure Oil Co., No. 1 Chowchilla, Madera Co.	7-10-14	8,402	gas; shut in
Pure Oil Co., No. 2 Chowchilla, Madera Co.	8-10-14	....	bldg. rig
Northern Counties Pet., No. 1 Tehama, Tehama Co.	25-24- 3	4,995	cmtd. 4,904
Shell Oil Co., No. 1 Branch, Monterey Co.	34-24-10	5,532	sd. sh. drlg.
W. I. T. Syndicate, No. 1 Flentge, Monterey Co.	31-22-14	....	location
Youngblood, C., No. 1 Ducor, Tulare Co.	31-23-28	....	rigging up
Seahawk Oil Co., No. 1 White River, Tulare Co.	24-24-28	....	bldg. rig
Buttes Oilfields, well No. 3, Sutter Co.	11-15- 1	5,320	will cmt.

IMPORTANT SOUTHERN CALIFORNIA WILDCATS

Company, well and location—	S. T. R.	Depth	Status—
Larco Oil Co., No. 1 El Segundo, Los Angeles Co.	12- 3-15	7,395	sd. sh. drlg.
Sovereign Oil Co., No. 1 El Segundo, Los Angeles Co.	22- 3-14	6,069	cmtd. 1,102
Pioneer Holding Co., No. 1 El Segundo, Los Angeles.	33- 3-14	....	rigging up
Standard Oil Co., No. 10 Inglewood Deep, Los Angeles	8- 2-14	1,210	sd. sh. drlg.
Allied Pet., No. 1 Del Rey, Los Angeles Co.	28- 2-15	6,709	suspended
Blackline Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,634	P.B. 5,600
Crest Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,702	cmtd. 6,444
Lucas, Andrew, No. 1 Del Rey, Los Angeles Co.	35- 2-15	6,637	dry; abd.
Mathews Pet. Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,543	suspended
Birch Royer Oil Co., No. 1 Del Rey, Los Angeles Co.	34- 2-15	6,523	suspended
Joyce Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	6,742	P.B. 6,675
Anglo American Oil Co., No. 1 Del Rey, Los Angeles	27- 2-15	6,552	hd. sh. drlg.
Union Oil Co., No. 16 Del Rey, Los Angeles Co.	27- 2-15	6,280	cmtd. 6,270
Union Oil Co., No. 17 Del Rey, Los Angeles Co.	27- 2-15	5,591	sd. sh. drlg.
Treasure Oil Co., No. 1 Del Rey, Los Angeles Co.	27- 2-15	4,921	redrlg. 3,851
Yant Pet. Corp., No. 1 Newhall, Los Angeles Co.	1- 3-16	....	rigging up
Dabney Pet. Co., No. 1 Malibu, Los Angeles Co.	5- 2-18	65	tech. spud
Vanco Dev. Co., No. 1 Artesia, Los Angeles Co.	25- 3-12	5,817	suspended
Eyer Pet. Co., No. 1 Torrance, Los Angeles Co.	20- 4-13	....	rig; suspended
Monarch Oil Corp., No. 1 Topanga, Los Angeles Co.	5- 1-16	800	hd. sd. drlg.
Standard Oil Co., No. 78 Montebello, Los Angeles Co.	2- 2-12	2,577	D.P. stuck
Signal Oil Co., No. 1 Montebello, Los Angeles Co.	4- 2-11	....	rigging up
The Texas Co., No. 1 Montebello, Los Angeles Co.	5- 2-11	7,275	fish. D.P.
The Texas Co., No. 2 Montebello, Los Angeles Co.	5- 2-11	5,264	hd. sd. drlg.
Universal Consd., No. 3 Montebello, Los Angeles Co.	5- 2-11	5,942	reaming
Universal Consd., No. 4 Montebello, Los Angeles Co.	5- 2-11	5,341	form. test
St. Helens Pet. Co., No. 2 Montebello, Los Angeles Co.	5- 2-11	....	location
Wilshire Oil Co., No. 1 Montebello, Los Angeles Co.	5- 2-11	5,971	will redrl.
Wilshire Oil Co., No. 2 Montebello, Los Angeles Co.	4- 2-11	2,895	sd. sh. drlg.
Wilshire Oil Co., No. 3 Montebello, Los Angeles Co.	11- 2-11	1,594	sd. sh. drlg.
North American, No. 1 Montebello, Los Angeles Co.	30- 1-10	2,471	sd. sh. drlg.
Hillman & Long, No. 1 Montebello, Los Angeles Co.	28- 1-11	997	sd. sh. drlg.
Frontier Oil Co., No. 1 Pico, Los Angeles Co.	7- 2-11	5,246	cleaning out
Oil & Gas Associates, No. 1 Pico, Los Angeles Co.	9- 2-11	791	cmtd. 400
York Oil Co., No. 1 Brea, Los Angeles Co.	1- 2-10	....	location
Pressel & Tull, No. 1 Puente, Los Angeles Co.	30- 2- 9	4,535	looks wet
Fraser, N. M., No. 1 Saugus, Los Angeles Co.	31- 4-16	761	sd. sh. drlg.
International Oil Dev., No. 1 Saugus, Los Angeles Co.	34- 5-16	351	sd. sh. drlg.
Great Coastal Oil Co., No. 1 Elsinore, Riverside Co.	36- 5- 5	1,530	sd. sh. drlg.
Domain Dev. Co., No. 1 Trabuco, Orange Co.	3- 6- 7	1,086	suspended
Continental Oil Co., No. 1 Santa Ana, Orange Co.	14- 5-10	1,320	cmtd. 1,320
Leaseholders Dev. Co., No. 1 Atwood, Orange Co.	26- 3- 9	4,040	suspended
Cook, T. A., No. 1 Richfield, Orange Co.	36- 3- 9	....	bldg. rig
Standard Oil Co., No. 1 Richfield, Orange Co.	36- 3- 9	....	rigging up
Viking Oil Co., No. 1 Richfield, Orange Co.	29- 3- 9	4,783	cleaning out
Hillman & Long, No. 1 San Juan, San Bernardino Co.	2- 3- 8	2,297	sd. sh. drlg.
Tehama Pet. Co., No. 1 Chino, San Bernardino Co.	33- 2- 8	3,068	suspended

3 YEARS and Not a Single Failure!



IXL Helical Pump Drives provide the element of dependability you need in this vital link in your pumping equipment. Three years of daily service in the oil fields proves the merits of these units. Not a single failure of any kind has marred the IXL record in all this time.

New units are daily adding evidence of the stamina of IXL heat-treated helical gears, large oversize ball and roller bearings, and the extra heavy base and heavily ribbed semi-steel case. The entire drive is built in accordance with A. G. M. A. recommended practice. It "stands the gaff" in tough oil field service. It is backed by more than 75 years of gear design and application experience.

You can get the same trouble-free service for your oil well pumps. Insist upon IXL drives. The supply companies listed below furnish IXL Pump Drive on their rigs. Others will upon request. Specify IXL for dependable service.

DISTRIBUTORS

Allison Meller Supply Co., Henderson, Tex.
Atlas Supply Co., Muskogee, Okla.
J. B. Bossird Corp., Shreveport, La.
The Bovaird Supply Co., Tulsa, Okla.
Decker Tool & Supply Co., Electra, Texas.
International Supply Co., Tulsa, Okla.
Jarecki Mfg. Co., St. Louis, Mo.
W. C. Norris Mfg. Co., Inc., Tulsa, Okla.
Republic Supply Co. of America, 2122 E. 7th St., Los Angeles, Calif.
Star Mfg. Co., Oklahoma City, Okla.
Superior Iron Works, Shreveport, La.
United Iron Works Co., Tulsa, Okla.
Welded Tank and Steel Co., Dallas, Texas.
Western Supply Co. of Texas, Dallas, Texas.
T. T. Word Supply Co., Houston, Texas.

Foote Bros. GEAR AND MACHINE CO.
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DIRECT FACTORY REPRESENTATIVES

George J. Fix Co., 2507 Commerce St., Dallas, Tex.
W. T. Graham, P. O. Box 596, Overton, Tex.
Max E. Landry, 1228 W. Main St., Oklahoma City, Okla.; 533 Mayo Bldg., Tulsa, Okla.

GULF COAST WILDCATS

Week Ending October 12

Raccoon Bend—Austin County

Humble O. & R. Co.'s No. 8 Wilson, 150 ft. NE of SW line, 1,000 ft. SE No. 6-X, William Harvey Sur.
T.D. 4,174 ft.; P.B. to 2,933 ft.; reaming.

Humble O. & R. Co.'s No. 3 H. F. Granen, 682 ft. NE of No. 1, 150 ft. SE of NW¼ of 63.8-ac. tract, Smeathers Sur.
Location.

Humble O. & R. Co.'s No. 7-X McCasland, 190 ft. NW line, 168 ft. SE line of Smeathers & White Sur.
Location.

Hastings—Brazoria County

Humble O. & R. Co.'s No. 2 Cannon, 330 ft. out of NE cor. of 40-ac. tract, H.T. &B. Sur. No. 36.
Derrick.

Humble O. & R. Co.'s No. 1 G. C. Cannon, 330 ft. N, 330 ft. W from SE cor. of 40-ac. lease, H.T.&B. Sur. Sec. 36.
T.D. 6,100 ft.; 7-in. csg. 5,719 ft.; I.P. 29 bbls. per hr. through ¼-in. choke; T.P. 900 lbs.; C.P. 850 lbs.

Humble O. & R. Co.'s No. 1 J. F. Bridges, center of N 10 acres of 20-ac. lease, A.C.H.&B. Sur. No. 2.
Location.

Humble O. & R. Co.'s No. 2 J. F. Bridges, center of S 10 acres of 20-ac. lease, A.C.H.&B. Sur. No. 2.
Location.

Stanolind O. & G. Co.'s No. 2 Hutchinson, 330 ft. E and 2,404 ft. N of SW cor. of 40-ac. tract, H.T.&B. Sur. No. 36.
16-in. csg. 106 ft.

Stanolind O. & G. Co.'s No. 1 Whiton, 330 ft. S, 500 ft. W of the NE cor. of G. W. Whiton 10-ac. tract, A.C.H.&B. Survey No. 2.
10¾-in. csg. at 1,995 ft.; T.D. 2,000 ft.; W.O.C.

Stanolind Oil & Gas Co.'s No. 3 Drake, 330 ft. N, 330 ft. E of SW cor. of 120-ac. tract, H.T.&B. Sur. No. 36.
Drlg. sand 5,789 ft.

Stanolind O. & G. Co.'s No. 2 Ford, 330 ft. N, 3,092 ft. W of SE cor. of 199.5-ac. tract, A.C.H.&B. Sur. No. 1.
T.D. 6,102 ft.; 7-in. csg. at 6,084 ft.

Stanolind O. & G. Co.'s No. 2 Kidd, A.C. H.&B. Sur. No. 2, 330 ft. E of most easterly W line, 416 ft. S of N line of 58.4-ac. tract.
Coring sand 6,096 ft.

Stanolind O. & G. Co.'s No. 2 Miller, A.C.H.&B. Sur. No. 2, 831 ft. S, 258 ft. W of NE cor. of 39.39-ac. tract.
10¾-in. csg. 2,226 ft.; drlg. lime shells at 3,398 ft.

Stanolind O. & G. Co.'s No. 3 Williams, A.C.H.&B. Sur. No. 1, 330 ft. W, 119.4 ft. S inside of NW cor. of 58.5-ac. tract.
Coring sand at 6,995 ft.

Stanolind O. & G. Co.'s No. 2 Guido, 330 ft. N, 1,650 ft. W from SE cor. of 40-ac. lease, H.T.&B. Sur. No. 36.
T.D. 6,050 ft.; 7-in. csg. 5,896 ft.; I.P. 243 bbls. in 10½ hrs., ¼-in. choke; T.P. 800 lbs.; C.P. 825 lbs.

Stanolind O. & G. Co.'s No. 2 Drake, 330 ft. N, 1,650 ft. W from SE cor. of 120-ac. lease, H.T.&B. Sur. No. 36.
Derrick.

Stanolind O. & G. Co.'s No. 3 Pennock, 330 ft. N, 1,650 ft. W from SE cor. of 40-ac. lease, H.T.&B. Sur. No. 36.
Derrick.

Stanolind O. & G. Co.'s No. 4 Sneed, 330 ft. S, 330 ft. W of NE cor. of Lot 13, D. M. Jay Subd., on Sneed 225-ac. tract, A.C. H.&B. Sur. No. 2.
T.D. 7,423 ft.; running 7-in. csg. to bottom.

Manvel—Brazoria County

Alpha Pet. Co.'s No. 1 Hart, 185 ft. NSL, 330 ft. EWL, Lot 9, H.T.&B. Sur.
Location.

Gulf Prod. Co.'s No. 5 Colby, 330 ft. from NW line of lease, 660 ft. SW of No. 3, T. Spraggins Sur.
Moving in.

Jay Simmons' No. 1 Wilson, center of Lot 25, H.T.&B. Sur. No. 23.
Location.

Sinclair Prairie Oil Co.'s No. 1 Michaelson, 330 ft. E of W line and midway of N and S lines, Lot 19, H.T.&B. Sur. No. 34.
Location.

J. W. Sorrells' No. 1 Swift, Blk. 21, Abst. 213, H.N. Little Sur.
Derrick.

Texas Co.'s No. 1 Doonan, 990 ft. N, 42 deg. E and 330 ft. S, 48 deg. E from W cor. of Lot 17, T. Spraggins Sur.
Derrick.

Texas Co.'s No. 4 Rush, 48 deg. E, 1,650 ft. S and 42 deg. W, 330 ft. N of NE cor. of lease, T. Spraggins Sur.
Rig up.

Texas Co.'s No. 16-B Belcher, 1,560 ft. N, 48 deg. W and 860 ft. N, 42 deg. E of SW cor. of lease, H. N. Little Sur.
10-in. csg. at 1,172 ft.; drlg. shale and lime 2,201 ft.

Texas Co.'s No. 1 Richard, 2,475 ft. N, 330 ft. W of SE cor. of Lot 15, H.&T.B. Sur., Sec. 23.
Drlg. shale 3,557 ft.

Texas Co.'s No. 15-B Belcher, N 42 degrees E, 1,371 ft. and N 48 degrees W, 330 ft. from SW cor. H. N. Little Sur.
T.D. 5,156 ft.; 7-in. csg. at 5,125 ft.; W.O.C.

Texas Co.'s No. 14 Houston Oil Field Material Co., 203 ft. E, 360 ft. S of NW cor. Lot 33, A.C.H.&B. Sur. Sec. 91.
T.D. 4,097 ft.; 7-in. csg. 4,074 ft.; I.P. 348 bbls. per day.

Texas Co.'s No. 1 A. Cooper, 247.5 ft. N, 330 ft. E of SW cor. of Lot 20, H.T.&B. Sur., Sec. 24.
Drlg. sand, hard streaks at 4,919 ft.

Texas Co.'s No. 2 Dawson, 247 ft. S, 241 ft. W of NE cor. of Lot 58, H.T.&B. Sur. No. 23.
Location.

Old Ocean—Brazoria County

Harrison & Abercrombie's No. 2 Bernard River, 1,000 ft. N, 54 deg. W, 400 ft. S. 36 deg. W of No. 1, Charles Brown Sur.
T.D. 4,910 ft.; cmtd. back to 2,700 ft.; sidetracked at 2,694 ft.; drlg. at 3,882 ft.; hard sand.

Pledger—Brazoria County

Humble O. & R. Co.'s No. 3 Smith, 5,187 ft. NE of most southerly SW line, 2,103

ft. NW of SE line, D. McNeel Sur.
Rigging up.

Humble O. & R. Co.'s No. 1 Josie Hirsch Block, Moore Sur.
T.D. 6,750 ft.; 7-in. csg. 6,508 ft.; I.P. 467,500 ft. of gas per day, ¼-in. choke; T.P. 2,300 lbs.; C.P. 2,200 lbs.

West Columbia—Brazoria County

Varner Oil Co.'s No. 1 Hogg, 800 ft. from most easterly W line and 3,600 ft. from N line of 400-ac. tract, M. Varner Sur.
Spudded.

Port Lavaca—Calhoun County

Crown Central Oil Co.'s No. 1 Wilson, 600 ft. NW line, in center of tract, A. Esparza Sur.
T.D. 6,315 ft.; plugged back 3,959 ft.; sidetracked at 3,149 ft.

Halliburton Oil Co.'s No. 4 Burton, M. Sanches Sur.
T.D. 7,498 ft.; P.B. to 4,020 ft.; set whipstock 4,158 ft.; sidetracking at 4,470 ft.

Anahuac—Chambers County

Gulf Prod. Co.'s No. 1 Knowles, 2,154 ft SN line, 467 ft. EW line, Sec. 48, H.&T.C. Sur.
Drlg. shale and sand at 8,016 ft.

Humble O. & R. Co.'s No. 2 Broussard, 869 ft. E of No. 1-B, 466 ft. S of N line, Sec. 59, H.&T.C. Sur.
Location.

Humble O. & R. Co.'s No. 3-B Broussard, 869 ft. E from No. 2-B, 466 ft. S of N line, Sec. 59, H.&T.C. Sur.
Location.

Humble O. & R. Co.'s No. 9 Milton, 873 ft. S of No. 5, 466 ft. W of E line, Sec. 58, H.&T.C. Sur.
Derrick.

Humble O. & R. Co.'s No. 3 White, 933 ft. W from No. 2, 466 ft. N of S line of lease, James McGahee Sur.
Derrick.

Humble O. & R. Co.'s No. 1-B Broussard, 466 ft. S of N line, 466 ft. E of W line of Sec. 59, H.&T.C. Sur.
10¾-in. csg. at 1,510 ft.; drlg. shale and lime 2,611 ft.

Humble O. & R. Co.'s No. 5 Broussard, 2,212 ft. E of W line, 466 ft. S of N line of Sec. 63, H.&T.C. Sur.
10¾-in. csg. at 1,504 ft.; drlg. shale and lime 2,882 ft.

Humble O. & R. Co.'s No. 5 Clark, 1,945 ft. S of N line, 466 ft. E of W line, Sec. 57, H.&T.C. Sur.
10¾-in. csg. at 1,538 ft.; drlg. shale and lime 4,508 ft.

Humble O. & R. Co.'s No. 6 Clark, 1,389 ft. N of S line, 466 ft. E of W line of Sec. 57, H.&T.C. Sur.
Location.

Humble O. & R. Co.'s No. 7 Middleton, 466 ft. E of W line and N of S line of 100-ac. tract in NE cor. of Sec. 56, H.&T.C. Sur.
Location.

Humble O. & R. Co.'s No. 6 Engel's, 1,000 ft. E of No. 1 466 ft. N of S line, 1,474 ft. E of W line, Sec. 50, H.&T.C. Sur.
10¾-in. csg. at 1,544 ft.; drlg. shale 2,282 ft.

Humble O. & R. Co.'s No. 8 Middleton, 2,212 ft. E of W line, 466 ft. N of S line of Sec. 58, H.&T.C. Sur.
Location.

Humble O. & R. Co.'s No. 2 Broussard, 2,332 ft. E of W line, 2,332 ft. N of S line of Sec. 63, H.&T.C. Sur.
Location.

Sun Oil Co.'s No. 3 White, 507 ft. S of N line, 1,933 ft. W of No. 2 James McGahey Sur.
Rig.

Johnson & Anderson's No. 1 J. T. White, 466 ft. from S and E lines of N 400 acres of James McGahey Sur.
Rig.

Mason & McCarthy's No. 2 White, 932 ft W of No. 1, 466 ft. N of S line of James McGahey Sur.
T.D. 7,085 ft.; 7-in. csg. at 7,025 ft.; W.O.C.

Sun Oil Co.'s No. 2 White, 467 ft. SN line, 933 ft. W of No. 1, James McGahey Sur
T.D. 7,028 ft.; 7-in. csg. 7,040 ft.; I.P. 648 bbls. per day, ¼-in. choke; C.P. 1,000 lbs.; T.P. 900 lbs.

Woodley Pet. Co.'s No. 1 Blanke, 330 ft. NS line, 990 ft. EW line, Sec. 41, H.& T.C. Sur.
Cored S.W. sand from 7,248-56 ft.; coring shale 7,395 ft.

Big Creek—Fort Bend

Gulf Prod. Co.'s No. 65 Davis, 2,260 ft. NE along SE line of Davis 2,228-ac. tract or NW cor. Texas Co.'s 300-ac. tract and 1,775 ft. NW at R/A, 500 ft. SE of No. 64 M. Young Sur.
Drlg. shale 2,582 ft.

Blue Ridge—Fort Bend County

San Jacinto Oil Co.'s No. 8 Blakely, 260 ft. due E of No. 5, 325 ft. W from center of road, Lot 8, Blk. E, E. Drew Sur.
Moving in.

Trans State Oil Co.'s No. 1-B Blakely, 100 ft. E of W line, 175 ft. N of S line Lot 6, Blk. G, E. Drew Sur.
T.D. 460; W.O.C.

Boling—Fort Bend County

Mack Hawk Oil Co.'s No. 2 E. C. Farmer, 367 ft. from NE line, 548 ft. from NW line of 50-ac. tract, J. Scott Sur.
Set surface csg. 951 ft.

Orchard—Fort Bend County

Gulf Prod. Co.'s No. 1-A J. M. Moore, 1,430 ft. W, 110 ft. N of SE cor. of sur. Durman Imigration A-177.
Drlg. sandy shale 663 ft.

Gulf Prod. Co.'s No. 44 Moore, 500 ft. NW of No. 42, Leo Burknapp Sur.
Drlg. sandy shale 2,891 ft.

Gulf Prod. Co.'s No. 43 Moore, 350 ft. E along S line of SW cor. of E.M.&G. Co. Sur. and 740 ft. N at R/A to said line of lease, 350 ft. E of No. 3 Moore.
Drlg. shale 6,851 ft.

Thompson—Fort Bend County

Gulf Prod. Co.—Humble Oil & Ref. Co.'s No. 26-A Booth, 921 ft. W of No. 23, 884 ft. N of S line of lease, S. Kennedy Sur.
Drlg. lime 1,375 ft.

Gulf Prod. Co.'s No. 2-A F. J. Booth, 485 ft. from N line, 698 ft. W of No. 24, S. Kennedy League.
Drlg. sandy shale 3,416 ft.

High Island—Galveston County

Stanolind O. & G. Co.'s No. 1-B Smith Royalty Acct., 200 ft. EW line, 1,660 ft. NS line, Susan Hope Sur. No. 3.
Location.

Stanolind O. & G. Co.'s No. 50 Cade, 850 ft. WE line, 950 ft. NS line of 460-ac. tract, N. Fitzsimmons Sur.
Rig up.

Stanolind O. & G. Co.'s No. 51 Cade, 690 ft. SN line, 620 ft. WE line of 460-ac. tract, Fitzsimmons Sur.
Rig up.

Stanolind O. & G. Co.'s No. 49 Cade, 372 ft. from NW line, 150 ft. from NE line of N. Fitzsimmons Sur.
Drlg. sand and lime 4,753 ft.

Stanolind O. & G. Co.'s No. 3-A Taylor, 62.5 ft. from W line of lease, 164 ft. S of No. 1-A, M. Dunman Sur.
Drlg. sand, shale and lime 5,049 ft.

Stanolind O. & G. Co.'s No. 4-A Taylor, 62.5 ft. from W line of 16.7-ac. tract, 120 ft. N of No. 1-A M. Dunman Sur.
7-in. csg. at 4,914 ft.; oil sand from 4,-917-5,043 ft.

Stanolind O. & G. Co.'s No. 48 Cade, 900 ft. SE and 150 ft. NE of SW corner Block 4, Fitzsimmons Survey.
Drlg. sand and lime 5,470 ft.

Dickinson—Galveston County

Coast Pet. Co.'s No. 2 Maco Stewart, 660 ft. due W of No. 1, 330 ft. NS line of lease, W. K. Wilson Sur.
Bldg. derrick.

Humble Oil & Ref. Co.'s No. 2 Townes, 933 ft. E of No. 1, 1,133 ft. W of E line, 3,604 ft. N along E line of SE cor. of B.B.B.&C. Sur.
10¾-in. csg. at 1,998 ft.; drlg. shale 3,851 ft.

Humble O. & R. Co.'s No. 1-B Bayou Dev. Co., 500 ft. S of lake in NW cor. of lease, 600 ft. E of W line, John Sellers Sur.
Drlg. shale 5,815 ft.

Humble O. & R. Co.'s No. 1 San Leon Farm, 1,300 ft. N of N bank of Dickinson Bayou, 100 ft. E of EL of J. S. Jones Sur. in 300-ac. tract, A. Edwards Sur.
Location.

Humble Oil & Refg. Co.'s No. 6-A Maco Stewart, 6,087 ft. S of NE corner, 1,396 ft. W of E line and 1,390 ft. E of W line and 466 ft. N of S line of Stewart 863-acre lease, J. Sellers Sur.
Drlg. shale 5,027 ft.

Humble O. & R. Co.'s No. 5-A Stewart, 466 ft. W of E line of Stewart "A" Lease, 5,500 ft. due S of No. 2-A Stewart, John Sellers Sur.
Rig.

Humble O. & R. Co.'s No. 1 E. E. Anderson, 375 ft. N of S line, and midway between E and W lines of Lot No. 4, John Sellers Sur.
Drlg. shale 3,336 ft.

Pure Oil Co.'s No. 3 J. W. Shelor, 779 ft. N, 182 ft. W of N. I. Shelar, B.B.B. &C. Sur.
T.D. 8,481 ft.; P.B. 4,815-4,650 ft.; sidetracking 6,400 ft.

Stanolind O. & G. Co.'s No. 3 State, 633 ft. SE of No. 1, 218 ft. N of S bank of Dickinson Bayou Sur., Tract No. 3.
Drlg. sand and shale 4,280 ft.

Stanolind O. & G. Co.'s No. 2 State, 1,369 ft. E of No. 1 State.
Drlg. shale 6,739 ft.

Turman Oil Co.'s No. 2 Piazza, 231 ft. W of E line, 730 ft. S of N line, 945 ft. E of No. 1, J. S. Sherman Sur.
Location.

Arriola—Hardin County

Houston Oil Co.'s No. 6-X fee, 2,620 ft. from E line, 400 ft. SW of No. 5, E. Arriola Sur.
(O.W.D.D.); drlg. sandy shale 2,314 ft.

Houston Oil Co.'s No. 7-X fee, 660 ft. 20 deg. 30 ft. SE from No. 1-X.
Abandoned.

Republic Oil C.'s No. 10 fee (old well).
Drlg. sandy shale 4,106 ft.

Batson—Hardin County

D. & L. Prod. Co.'s No. 1 Hooks, 100 ft. S of N line, 300 ft. E of W line 26.75-ac. tract, W. Donoho Sur.
10¾-in. csg. 1,098 ft.; drlg. shale 3,460 ft.

John Deering and Batson Oil Co.'s No. 4 Mary Hooks, located halfway between No. 1 and No. 3 W. Donoho Sur.
T.D. 5,109 ft.; I.P. 1,100 bbls. pipe line oil per day, 27/64-in. choke; T.P. 600 lbs.; C.P. 900 lbs.

Shell Pet. Corp.'s No. 2 Jackson, 190 ft. W EL, 395 ft. N of SL of lease, W. Donoho Sur.
Location.

Texas Co.'s No. 1 Christian, 100 ft. from W line, 350 ft. from N line of 26.45-ac. tract, W. Donoho Sur.
Drlg. shale and shells 4,494 ft.

Saratoga—Hardin County

Fauntaine and Poggi's No. 1 Enloe and Teel, 600 ft. WE line, 100 ft. SN line of league, T. Gainer Sur.
Rig up.

Hines' No. 2 Caswell, 3,600 ft. N of S line, 1,376 ft. E of W line of B.B.B.&C.R.R. Co. Sur. No. 72.
Hines' No. 2 Caswell.
Spudded 34 ft.

Pierce Junction—Harris County

J. S. Abercrombie et al's No. 6 Ritter, 125 ft. N of highway, 190 ft. W of No. 5, James Hamilton Sur., Sec. 51.
T.D. 3,661 ft.; 9⅝-in. csg. at 3,610 ft.; testing.

Gulf Prod. Co.'s No. 11 H. C. Cain, 390 ft. from W line, thence 439 ft. at R/A to N line of 130-ac. tract, Jas. Hamilton Sur. No. 98.
Drlg. hard sand 5,730 ft.

Navarro Oil Co.'s No. 3-B Cain, Jas. Hamilton Sur.
T.D. 7,078 ft.; shale; heaved to 7,018 ft.; P.B. to 6,130 ft.; sidetracked and drilled at 5,554 ft.; twisted off D.S.; fishing.

Wright et al's No. 1 Higgins, 25 ft. from S and W lines of Lot 2 of W. H. Jones 25-ac. Subvd., B.B.B.&C. R.R. A-179.
T.D. 4,066 ft.; 7-in. csg. at 4,030 ft.; I.P. 300 bbls. per day.

Humble—Harris County

Sun Oil Co.'s No. 90 River Lease, 650 ft. W of E line, 850 ft. N of S line of Robert Dunnan Sur.
Abd. 1,458 ft.

Sun Oil Co.'s No. 30 Bender, 2,392 ft. N, 3,080 ft. W of most northerly SE cor. of lease; E. Adams Sur.
Drlg. rock 5,496 ft.

Texas Co.'s No. 38 Koehler, 1,750 ft. N, 500 ft. E of SW cor. of the tract, J. B. Stevenson Sur.
Drlg. shale and lime 3,610 ft.

Mykawa—Harris County

Danciger O. & R. Co.'s No. 4 Minnetex, 300 ft. WE line, 250 ft. SN line of Lot 192, Wm. Lovett Sur.
T.D. 2,811 ft.; 8⅝-in. csg.

West Prod. Co.'s No. 2 Lobit, 403 ft. EW line, 200 ft. SN line, Lot 17, F. J. Rothas Sur.
Drlg. sand and gravel 967 ft.

West Prod. Co.'s No. 5 Platt, 806 ft. W of E line, 508 ft. N of S line of lease. W.C. Walters Sur.
10¾-in. at 1,506 ft.; T.D. 1,521 ft.

West Prod. Co.'s No. 4 Irwin, 200 ft. EW line, 220 ft. SN line of lease, W. B. Walker Sur.
T.D. 4,146 ft.; 7⅝-in. csg. at 4,103 ft.; W.O.C.

South Houston—Harris County

Diadem Oil Co.'s No. 1 Mrs. Alice Dean, center of Lot 152, H.T.&B. Sur. No. 6, 141 ft. EW line, 100 ft. SN line of lot.
Location.

Stanolind O. & G. Co.'s District 19, No. 1, center of Lot 8, Blk. 77.
Location.

Stanolind O. & G. Co.'s District 21, center Lot 1, Blk. 62.
Location.

Stanolind O. & G. Co.'s District 22, No. 1, center of Lot 8, Blk. 71.
Location.

Stanolind O. & G. Co.'s District 27, No. 1, center Lot 1, Blk. 102.
Location.

Stanolind O. & G. Co.'s No. 1 Meadowbrook, 417 ft. at right angles from NE line, 417 ft. from center line of Berry Gully, 414 ft. NW along NE line and 417 ft. southwesterly at right angles.
16-in. csg. at 106 ft.

Stanolind O. & G. Co.'s Drlg. District 5, No. 1, center of Lot No. 2, Blk. 7.
Location.

Stanolind O. & G. Co.'s Drlg. District 8, No. 1, center Lot 16, Blk. 32.
Location.

Stanolind O. & G. Co.'s Drlg. District 10, center Lot 16, Blk. 28.
Location.

Stanolind O. & G. Co.'s No. 1 fee, 330 ft. S, 300 ft. E of NW cor. of 20-ac. tract, H.T.&B. Sur. No. 5.
T.D. 5,605 ft.; P.B. and set whipstock at 4,428 ft.; sidetracked from 4,478-98 ft.; drlg. in new hole 4,522 ft.

Stanolind O. & G. Co.'s No. 1 Hartow, C Lot 10, Blk. 82, 1,390 ft. E, 660 ft. S of No. 1, H.T.&B. Sur. No. 5.
Drlg. shale 6,370 ft.

Stanolind O. & G. Co.'s No. 1 Ed Wells, C Lot 3, Blk. 146, 1,240 ft. E, 2,270 ft. N of No. 1, H.T.&B. Sur. No. 5.
T.D. 5,600 ft.; reaming at 5,300 ft.

Tomball—Harris County

Humble O. & R. Co.'s No. 2-B Michel, 466 ft. S of N line of Sec. 190, 388 ft. E of W line, Jesse Pruitt Sur.
Drlg. shale 5,537 ft.

Humble O. & R. Co.'s No. 1 Mrs. Jessie Mahaffey, 550 ft. E of W line, 432 ft. N of S line of 132-ac. tract, Jesse Pruitt Sur.
10¾-in. csg. at 937 ft.; drlg. shale 2,-442 ft.

Humble O. & R. Co.'s No. 3 Faris, 1,211 ft. NS line, 1,921 ft. W of most easterly E line of lease, W. Usner Sur.
T.D. 5,562 ft.; 7-in. csg. at 5,560 ft.; W.O.C.

Humble O. & R. Co.'s No. 3 Theis, 466 ft. SN line, 500 ft. WE line, C. N. Pillot Sur.
T.D. 5,580 ft.; perforated csg. from 5,-572-76 ft.; swabbed 5,000 ft.; no show; pulling tubing.

Humble O. & R. Co.'s No. 4-B Kobba, 550 ft. E of most westerly W line, 466 ft. S of most northerly N line, J. H. Edwards Sur.
T.D. 5,611 ft.; I.P. 13 bbls. per hr., ¼-in. choke; T.P. 400 lbs.; C.P. 975 lbs.

Humble O. & R. Co.'s No. 4 Rudel, 2,741 ft. NS line, 160 ft. W of most easterly E line, 629 ft. NE of No. 2, J. House Sur.
Rig.

Humble O. & R. Co.'s No. 1 Michel, 491 ft. E of W line of Sur. and on line between lots 178 and 182 Tomball Townsite, J. Pruitt Sur.
Location.

Shell Pet. Corp.'s No. 4 Rudel, 1,266 ft. W of E line, 420 ft. from N and S lines of 30-ac. tract, J. Pruitt Sur.
10¾-in. csg. at 970 ft.; T.D. 975 ft.

Mauritz-Jackson County

Shell Pet. Corp.'s No. 1-A T. N. Mauritz, 682 ft. S, 466 ft. W of NE cor. of 160-ac. lease, A. Kountz Sur.
Bldg. derrick.

Smith and McDannald's No. 1 Mauritz, 467 ft. WE line, 394 ft. NS line of survey, J. Cummings Sur., Abst. 236.
T.D. 1,202 ft.; preparing to run 10¾-in. csg.

Texas Pacific Coal & Oil Co. and Venza Oil Co.'s No. 1 J. M. Rosborough, 330 ft. each way out of NW cor. of 416-ac. lease of M.C. Sur. No. 37.
Location.

Big Hill—Jefferson County

Stanolind O. & G. Co.'s No. 2-A Pipkin & Davis, 1,430 ft. SW of NE cor. of Pipkin & Davis lease along SE line of same and 50 ft. SE at right angles, William McFaddin Sur.
T.D. 5,953 ft.; reaming to set 9⅝-in. csg.

Stanolind O. & G. Co.'s No. 1-B Pipkin & Davis, 2,225 ft. from E line and 2,385 ft. from N line of survey, Wm. McFadden Sur.
T.D. 8,500 ft.; reaming at 6,500 ft.

Fannett—Jefferson County

Blue Eagle Oil Co.'s No. 1 Junker, 50 ft. each way out of NW cor. of lease. W. H. Smith Sur.
Drlg. hard lime 2,166 ft.

Gulf Prod. Co.'s No. 9 Burrell, 2,010 ft. N along W line of 232-ac. tract from SE cor. of Thomas 446-ac. tract, thence 350 ft. E at right angles, W. H. Smith Sur.
Drlg. sand and boulders at 2,285 ft.

Cleveland—Liberty County

Gulf Prod. Co.'s No. 11-C Kirby, 1,034 ft. N, along W line of J. Pleasant Sur., from NE cor. of J. Eldridge Sur. and 1,-400 ft. E at R/A to said line, J. Pleasant Sur.
Drlg. shale and shells at 5,064 ft.

Esperson—Liberty County

General Crude Oil Co.'s No. 2 Davis (O. W.D.D.)
Drlg. sandy shale at 4,132 ft.

General Crude Oil Co.'s No. 10 Moore's Bluff (work over)
Drlg. shale 2,810 ft.

General Crude's No. 1 Hlavaty, 467 ft. out of SE cor. of F. M. Gardner Sur.
Drlg. hard sand at 7,324 ft.

Hankamer—Liberty County

Eastman-Ward's No. 1 R. E. Lee, 115 ft. from N line of lease and 76 ft. W of west bank of White Bayou, Geo. Stengler Sur.
S.D. 2,524 ft.

Eljean Oil Co.'s No. 2 Exzell, 600 ft. due W of No. 1, 130 ft. from N and S lines of Levi-Barrow Sur.
Preparing to sidetrack at 4,346 ft.

Eljean Oil Co.'s No. 1 Thomas, 300 ft. W of E line, 300 ft. SN line, Levi Barrow Sur.
Surface sand 12 ft.

Gulf Prod. Co.'s No. 5 Crow & Jacobs, 2,900 ft. N, 2,140 ft. E of SW cor. of 300-ac. lease, H.&T.C. Sur.
Drlg. shale and lime at 3,977 ft.

Gulf Prod. Co.'s No. 23 Boyt
T.D. 5,110 ft.; P.B. to 2,560 ft.

Gulf Prod. Co.'s No. 21 E. W. Boyt, 110 ft. from W line of Amos Allen Sur.
Location.

Wilson-Broach Oil Co.'s No. 3 McLean-Crook, 100 ft. NS line and EW line of 33-ac. tract, L. Barrow Sur.
Drlg. shale and lime 4,133 ft.

Hull—Liberty County

Baggett and Hutcheson's No. 1 Nelson, 50 ft. N of S line, 76 ft. W of E line of Nelson 644-ac. tract.
Drlg. 364 ft.

B. Baggett's No. 3 Baggett, 75 ft. W of No. 2 J. Devore League.
T.D. 410 ft.; I.P. 8 bbls. pipe line oil per day.

W. B. Flynn's No. 8-B Able, 50 ft. S, 300 ft. W of NE cor. of old Humble 10-ac. tract.
Drlg. gumbo 475 ft.

Gulf Prod. Co.'s No. 110 Phoenix, 1,943 ft. S along W line from NW cor. of 300-ac. lease, and 1,225 ft. E at right angles, J. Devore League.
Drlg. shale 2,985 ft.

Republic Prod. Co.—Houston Oil Co.'s No. 158 Dolbear, 170 ft. NW of No. 99 and 250 ft. SW of No. 156, J. Devore League.
Rig up.

Van Vleck—Matagorda County

Skelly Oil Co.'s No. 1 Sally Johnson, 467 ft. W of E line, 395 ft. SN line of 27-ac. tract, M. Cummings Sur.
Moving in rig.

Skelly Oil Co.'s No. 1 Cobb, (work over)
Pulling screen to deepen to 7,500 ft.

Shally Oil Co.'s No. 3 Cobb "B," 2,750 ft. from NW line, 2,900 ft. from SW line of M. Cummins Sur.
T.D. 8,708 ft.; to P.B. to approx. 7,890 ft.; perforated csg. 7,836-39 ft.; flowed gas and salt water on D.S.T.; P.B. from 7,942 ft. to 7,635 ft.; W.O.C.

Conroe—Montgomery County

Humble O. & R. Co.'s No. 78-A South Texas Dev. Co., 467 ft. NS line, 603 ft. EW line, Theo. Slade Sur.
10¾-in. csg. at 965 ft.; drlg. shale 1,780 ft.

Humble O. & R. Co.'s No. 77-A South Texas Dev. Co., 933 ft. N of No. 76-A, 1,403 ft. NE of SW line Theodore Slade Sur.
T.D. 5,089 ft.; perforated csg.; swabbed 50 per cent oil and 50 per cent salt wtr.; shut down.

Sun Oil Co.'s No. 24 Keystone Mills.
T.D. 5,070 ft.; 7-in. csg. at 5,006 ft.

Sun Oil Co.'s No. 29 Foster.
T.D. 5,120 ft.; I.P. 57 bbls. in 24 hrs.; C.P. 1,475 lbs.; T.P. 1,450 lbs.

Sun Oil Co.'s No. 10 Keystone Mills.
Derrick.

Splendora—Montgomery County

Bryce McCandless et al's No. 1 Texas Long Leaf Lbr. Co., 330 ft. from N and E lines of the W¼ of Blk. No. 8, Walker County School Land Sur.
Derrick.

Orange—Orange County

Brownie Bobbette's No. 2 McLean.
T.D. 3,603 ft.; I.P. 90 bbls. of fluid, 50 per cent wtr.

Orange Pet. Co.'s No. 12 Chisson.
T.D. 4,320 ft., prepare to test.

Trio Oil Co.'s No. 2 Cormier.
S.D. 3,035 ft.

Port Neches—Orange County

Texas Co.'s No. 4-A Polk, 400 ft. N, 125 ft. E from SE cor. of Mary Hall Sur. No. 1, being in the T. J. Notgrass Sur.
Rig up.

Livingston—Polk County

B. & W. Oil Co.'s No. 1 West Lumber Co. (workover).
Old T.D. 4,370 ft.; P.B. to 4,357 ft.

Gem Oil Co.'s No. 2 Cavanaugh-Collins, 660 ft. S of No. 1, 330 ft. E of Center Road, A. Viesca Sur.
10¾-in. csg. at 420 ft.; T.D. 500 ft.

Humble O. & R. Co.'s No. 17 Granbury, 4,238 ft. NW line, 1,275 ft. NE line of Sec. 10, A. Viesca Sur.
M. L. R.
50 per cent oil and 50 per cent salt wtr.; S.D.

Humble O. & R. Co.'s No. 14 Granbury, 3,306 ft. SE of NW line, Sec. 10, 1,274 ft. SW of NE line, Sec. 10, A. Viesca Sur.
T.D. 4,210 ft.; 7-in. csg. at 4,199 ft.; swabbing.

Humble O. & R. Co.'s No. 16 Granbury, 1,339 ft. from NW and 466 ft. from NE lines of Block No. 11, A. Viesca Sur.
Location.

Kettle & Gronoski's No. 1 Kingsbury County Holding Corp. (workover).
Old T.D. 4,362 ft.; bldg. derrick to workover.

Ownby-Shell Pet. Corp.'s No. 4 Pratt, 466 ft. out of NW cor. of 197-ac. lease, A. Viesca Sur.
Derrick.

Sun Oil Co.'s No. 6 Pratt, 230 ft. from S line of lease, 460 ft. W of No. 2, A. Viesca Sur.
10¾-in. at 552 ft.; drlg. shale 2,110 ft.

Tom O'Connor—Refugio County

Quintana Pet. Co.'s No. 20-A, Thomas O'Connor, 1,500 ft. SW of NE line, 933 ft. E of No. 11-A J. M. Sevisher Sur.
T.D. 5,999 ft.; comp.; no gauge.

Quintana Pet. Co.'s No. 21-A, Thomas O'Connor, 1,500 ft. SE of NW line, 1,750 ft. NE of No. 17-A J. M. Sevisher Sur., Blk. 34.
T.D. 5,885 ft.; comp.; no gauge.

Coletto Creek—Victoria County

Camp's No. 1 Kastner, 330 ft. from NE and SE lines of 52-ac. tract, Manchola Sur.
Moving in.

Placedo—Victoria County

Barnsdall-Felmont Oil Co.'s No. 1 Pickering, 330 ft. NW line, SW line and railroad, NE offset to No. 1 Gray, S.A.&M.G. Sur.
T.D. 4,778 ft. 6⅝-in. csg. 4,771-81 ft.; I.P. 516 bbls. pipe line oil in 24 hrs., 15/64-in. choke.

Barnsdall Oil Co.'s No. 1 Smith, 330 ft. from NW line, 420 ft. from railroad, A. Murey Sur.
T.D. 590 ft.; 10¾-in. csg. at 580 ft.

J. McDowell's No. 1 Kirasek, center Blk. 46, Placedo Townsite.
Spudded.

C. F. McGrew's No. 1 Hadley, center of 20-ac. lot, S.A.&M.G. Sur., Sec. 9, Blk. 49, Lots 1 and 2.
Location.

Smith and Gulf Prod. Co.'s No. 1 Boehn, 330 ft. each way out of NE cor. of Lot 8, S.A.&M.G. Sur.
Drlg. gumbo 518 ft.

E. L. Smith Oil Co.'s No. 1 Wright, 660 ft. SE of No. 1, 330 ft. SW of railroad.
7-in. csg. 4,750 ft.; reset screen at 4,787 ft.; running tubing.

Sun Oil Co.'s No. 2 Marek, 420 ft. from E line, 330 ft. from S line of J. M. Brownson Sur.
Drlg. shale 1,650 ft.

Westgate Oil Co.'s No. 1 Henderson and Pickering, 330 ft. each way out of SW cor. of Lot 76, S.A.&M.G. Sur.
Rig up.

Clay Creek—Washington County

Pompy et al's No. 1 Klatte, J. F. Perry League, 150 ft. each way out of NW cor. of 50-ac. tract.
T.D. 1,240 ft.; shale; no report.

Sun Oil Co.'s No. 3 Theo Qeube, 450 ft. from SE line and 150 ft. from NE line of 68.3-ac. tract, J. T. Perry Sur.
Drlg. 410 ft.

Louise—Wharton County

Pure Oil Co.'s No. 1 H. F. Whiteside, 660 ft. NE and 330 ft. SE of W cor. of 80-ac. tract, M.&C. Sur., Sec. 19.
Rig up.

Pure Oil Co.'s No. 1-B Garrett, 506.47 ft. NE, 429.5 ft. SE from W cor. of Sur No. 27, Morris & Cummings Sur.
Drlg. hard sand at 6,042 ft.

Pickett Ridge—Wharton County

Texas Co.'s No. 4-A Pierce, 1,980 ft. S, 32 degrees E from Pierce No. 3-A H.& G.N. Sur., Sec. 38.
16-in. csg. at 38 ft.

SOUTH LOUISIANA FIELDS

Black Bayou—Cameron Parish

Shell Pet Corp.'s No. 27 Watkins, 1,921 ft. S, 179 ft. E of NW cor. of Sec. 17-12s-12w.
10¾-in. csg. 1,304 ft.; T.D. 1,308 ft.

Shell Pet. Corp.'s No. 28 Watkins, 1,929 ft. S, 925 ft. E of NW cor. of Sec. 17-12s-12w.
Location.

Shell Pet. Corp.'s No. 25 Watkins, Sec. 18-12s-12w.
9⅝-in. csg. at 4,663 ft.; T.D. 4,686 ft.

Shell Pet. Corp.'s No. 26 Watkins, 3,380 ft. W, 100 ft. S of NE cor. of Sec. 18-12s-12w.
Location.

Shell Pet. Corp.'s No. 24 Watkins, 2,832 ft. W, 695 ft. S of NW cor. Sec. 18-12-12.
Drlg. limestone 4,048 ft.

Bay St. Elaine

Texas Co.'s No. 3 School Board, Sec. 16-22s-18e.
Location.

Caillous Island—Terrebonne Parish

Texas Co.'s No. 1 State Terrebonne Bay, Sec. 19-23s-20e.
Drlg. sand, lime and pyrites 5,956 ft.

Texas Co.'s No. 27 State, Sec. 17-23s-20e.
Sand and lime 5,674 ft.; drlg.

Bosco—Acadia Parish

Superior Oil Prod. Co.'s No. 1 Bryan, 224 ft. N, 330 ft. E of SW cor. of NE¼ of Sec. 34.
(O.W.D.D.); old T.D. 8,585 ft.; encountered sand showing oil from 9,004-24 ft.; T.D. 9,034 ft.; prepare to test.

Tepetate—Acadia Parish

Continental Oil Co.'s No. 1 Federal Land Bank, cen. of S½ of NW¼, NW¼ Sec. 28-7s-2w.
Drlg. shale 7,434 ft.

Continental Oil Co.'s No. 1 Henry Klumpp, 660 ft. W, 330 ft. S of NE cor. of Sec. 34, Twp. 7s-2w.
T.D. 8,447 ft.; coring test; showed sand 8,326-39 ft.; will P.B. to approx. 8,255 ft.

Continental Oil Co.'s No. 1 Homeseekers Dev. Co., 3,300 ft. W, 2,640 ft. N of SE cor. of Sec. 29-7s-2w.
Cored sand showing gas from 8,258-90 ft.; coring ahead.

Darrow—Ascension Parish

Humble O. & R. Co.'s No. 4 Gumble, 223 ft. at right angles to SW line of 121.9-ac. tract and 541 ft. SE from No. 2, Sec. 33-10s-2e.
Coring shaley sand at 5,417 ft.

Humble O. & R. Co.'s No. 6 Community, 510 ft. S of No. 5, 352 ft. SW from NE line, 1,230 ft. SE from No. 2, Sec. 31-10s-2e.
Coring sand at 5,680 ft.

Sorrento—Ascension Parish

Athens Oil Co.'s No. 3 United Land, 400 ft. W of No. 2, Sec. 15-10s-4e.
Location.

Cameron Meadows—Cameron Parish

Magnolia Pet. Co.'s No. 14 Cameron Meadows, 296 ft. W, 150 ft. S of NE cor. Sec. 21-14s-13w.
T.D. 4,356 ft.; I.P. 500 bbls. per day.

Burton Sutton Oil Co.'s No. 9 School Land, 551 ft. N of S line, 293 ft. W of E line of Sec. 16-14s-13w.
Rig up.

Burton Sutton Oil Co.'s No. 4 School Land, Sec. 16-14s-13w.
Derrick.

Choctaw Dome—Iberville Parish

Standard Oil Co.'s No. 6 Gay, 400 ft. N, 50 ft. W of No. 5, Sec. 52-9s-11e.
Location.

Zeni Oil Co.'s No. 1 Schwing, Sec. 19-17s-24e.
Fishing 5,387 ft.

Dog Lake—Terrebonne Parish

Texas Co.'s No. 11 State, 1,100 ft. N, 2,476 ft. W of SE cor. of Sec. 21-21s-16e.
S.D. 2,914 ft.

Four Isle—Terrebonne Parish

Texas Co.'s No. 6 State, 1,933 ft. S, 2,100 ft. W of NE cor. of Sec. 22-21s-16.
Drlg. lime 5,164 ft.

Texas Co.'s No. 5 La. Land & Expl. Co., 2,177 ft. E, 1,385 ft. S of NW cor. Sec. 24-21s-16e.
Drlg. shale and sand 4,582 ft.

Texas Co.'s No. 5 State, 885 ft. S, 2,327 ft. E of NW cor. of Sec. 24-21s-16e.
Location.

Garden Island Bay—Plaquemines Parish

Texas Co.'s No. 17 State, 1,970 ft. N, 1,648 ft. E of SW cor. of Sec. 37-23s-33e.
Location.

Texas Co.'s No. 18 State, 1,268 ft. N, 2,318 ft. E of SW cor. of Sec. 37-23s-33e.
Location.

Texas Co.'s No. 13 State, 3,391 ft. S and 1,604 ft. W of NE cor. Sec. 107-23-32.
Rig up.

Gillis—Calcasieu Parish

Fohs Oil Co.'s No. 7 Castle, 1,115 ft. S, 350 ft. E of NW cor. of NW cor. of NW¼ of SE¼ Sec. 14-9s-8w.
Drlg. shale 5,310 ft.

Fohs Oil Co.'s No. 1 Airhart, 275 ft. W and S of NE cor. Sec. 14-9-8.
T.D. 9,246 ft.; P.B. to 7,060 ft.; drilled to 7,090 ft.; tested 25 lbs. pressure, 27 thribbles oil; no report.

Texas Co.'s No. 6 Nickerson, 287 ft. N, 289 ft. W of SE cor. of NW¼ Sec. 12-9s-8w.
T.D. 6,710 ft.; 7-in. csg. at 6,695 ft.

Union Sulphur's No. 4 Powell, 585 ft. S, 1,621 ft. E of NW cor. of Sec. 12-9s-8w.
Location.

Union Sulphur Co.'s No. 4 Barbe, 996 ft. N, 329 ft. W of SE cor. of NE¼ Sec. 11-9s-8w.
Drlg. shale and lime 6,481 ft.

Union Sulphur Co.'s No. 4 Reeves, 950 ft. W, 290 ft. S of NE cor. of SW¼, NW¼ Sec. 12-9s-8w.
Drlg. sand and shale 4,448 ft.

Union Sulphur Co.'s No. 3 Castle.
T.D. 8,580 ft.; P.B. 5,075 ft.; cored oil sand from 5,770-77 ft.; preparing to set 7-in. csg.; no report.

Union Sulphur Co.'s No. 7 State, 1,316 ft. N, 199 ft. E of SW cor. Sec. 12-9s-8w.
Location.

Union Sulphur Co.'s No. 12 State, 2,310 ft. N, 1,850 ft. E of SW cor. of Sec. 12-9s-8w.
T. D. 7,694 ft.; P.B. 7,545 ft.; showed dry gas 2,500 lbs. W.P.

Union Sulphur Co.'s No. 13 State, 1,464 ft. E, 2,088 ft. N of SW cor. of Sec. 12-9s-8w.
Location.

Gueydan—Vermilion Parish

Pure Oil Co.'s No. 6 Alliance Trust, 667 ft. E, 1,787 ft. S line of lease, Sec. 34-11s-1w.
T.D. 9,545 ft.; pulled up to 9,198 ft.; circulating at 9,093 ft.

Hackberry—Cameron Parish

Calcasieu Oil Co.'s No. 5 Hanzen, 2,520 ft. W, 303 ft. S of NE cor. of Sec. 14-12s-10w.
Drlg. shale 2,010 ft.

Gulf Refg. Co.'s No. 19 Erwin, 1,315 ft. W along S line of the SE cor. of Sec. and 960 ft. at R/A to S line, Sec. 12-12-10w.
Drlg. shale at 7,702 ft.

Rcnoc Oil Co.'s No. 1 J. M. Vincent, Sec. 29-12s-12w.
Drlg. shale 1,920 ft.

Stanolind O. & G. Co.'s No. 14 Gulf Land, Sec. 14-12s-10w.
Coring sand 5,516 ft.

Texas Co.'s No. 18 State, N 13 deg. 20 ft. W, 4,000 ft. from No. 13, Sec. 44-12s-9w.
Location.

New Iberia—Iberia Parish

Harrison & Abercrombie's No. 4 Schwing, Sec. 56-12s-7e.
Drlg. shale 6,710 ft.

Kitos Oil Co.'s No. 1 Sealy, Sec. 56-12s-7e.
Derrick.

Texas Co.'s No. 1-B Hanzen, 1,418 ft. NE along NW line from most W cor., thence SE at right angle, Sec. 54-12s-7e.
T.D. 5,401 ft.; sand 5,385-5,401 ft.; running csg.; to test.

IOWA—Calcasieu and Jeff Davis Parish

Shell Pet. Corp.'s No. 18 Heyd, 1,068 ft. S, 330 ft. W of NE cor. of NW¼ of Sec. 13.
W.O.C. 6,960 ft.

Jennings—Acadia Parish

Abshire-Bolyard's No. 3 Clemonds, 2,500 ft. N, 95 ft. E of SW cor. Sec. 46.
T.D. 2,039 ft.; pumped 25 bbls. net oil, 50 per cent salt wtr.; S.D.

Yount Lee Oil Co.'s No. 15 Houssiere-Latriele.
Drlg. sand 5,876 ft.

Lafitte—Jefferson Parish

Texas Co.'s No. 2 Rigolet Co-operative Co., 467 ft. S, 1,194 ft. W of NE cor. Sec. 30-19s-24e.
Location.

Lake Hermitage—Plaquemines Parish

Humble O. & R. Co.'s No. 1 State Land, 1,080 ft. E, 200 ft. N of Texas Gulf No. 6, Sec. 11-18s-25e.
Drlg. salt 3,847 ft.; top salt 3,811 ft.

Lake Pelto—Terrebonne Parish

Texas Co.'s No. 14 State, Sec. 8-23s-18e.
Rig up.

Lake Barre—Terrebonne Parish

Texas Co.'s No. 35 Lake Barre, Sec. 40-21s-19e.
T.D. 3,781 ft.; 7-in. csg. at 3,742 ft.; preparing to test.

Leesville—Lafourche Parish

Texas Co.'s No. 39 Leesville, 125 ft. S, 1,481 ft. W of NE cor. SE¼ of Sec. 27-21s-22e.
Location.

Texas Co.'s No. 38 L.L.&E., 201 ft. W and 292 ft. S of NE cor. of SE¼ of Sec. 27-21s-22e.
Drlg. shale 3,554 ft.

Texas Co.'s No. 25 Leesville.
Derrick.

Texas Co.'s No. 23 Leesville, 975 ft. S, 1,975 ft. W of NW cor. of SW¼ Sec. 26-21-22.
Location.

Texas Co.'s No. 32 Leesville, 890 ft. S, 2,484 ft. W of NE cor. SE¼ Sec. 27-21s-22e.
Drlg. shale 2,580 ft.

Lockport—Calcasieu Parish

Magnolia Pet. Co.'s No. 10 Farquhar, 200 ft. S, 200 ft. E of NW cor. SE¼ SE Sec. 8-10s-9w.
Drlg. gravel 125 ft.

Roanoke—Jefferson Davis Parish

Glassel et al's No. 1 La. Irrigation Mill Co., 695.5 ft. E and 475 ft. N of SW cor. Sec. 1-9s-4w.
Location.

Humble O. & R. Co.'s No. 2 C. N. Taylor, 1,320 ft. E, 440 ft. S of NW cor. of SW¼ Sec. 12-9s-4w.
T.D. 7,805 ft.; 7-in. csg. at 7,789 ft.; I.P. 720 bbls. per day, ¼-in. choke; T.P. 1,150 lbs.; C.P. 1,350 lbs.

Humble O. & R. Co.'s No. 1 Nelson Thomas, 880 ft. W of No. 2 Kratzer, 440 ft. N and W of SE cor. of 200-ac. tract.
T.D. 7,030 ft.; perforated csg. from 6,927-33 ft. with 10 holes; set 2½-in. tubing at 6,878 ft.; came in flowing salt wtr. and gas; killed well and plugged perforations; W.O.C.

Shell Pet. Corp.'s No. 1 Jarnigan, 330 ft. E, 660 ft. S, NW cor. Sec. 12-9s-4w.
T.D. 10,750 ft.; cut 9⅝-in. csg. at 3,500 ft.

Sweet Lake—Calcasieu Parish

Pure Oil Co.'s No. 13 Yount Lee, 800 ft. S, 66 deg. 42 ft. E of No. 12, Sec. 13-13-13.
Drlg. shale 5,430 ft.

Sulphur—Calcasieu Parish

Union Sulphur Co.'s No. 814 fee, 2,666 ft. N, 411 ft. W of Center Sec. 29-9s-10w.
Drlg. shale 2,862 ft.

Union Sulphur Co.'s No. 813 fee.
Drlg. sand 5,110 ft.

White Castle—Iberville Parish

Shell Pet. Corp.'s No. 8 Wilbert.
T.D. 6,009 ft.; fishing.

Shell Pet. Corp.'s No. 1 Adams, 2,340 ft. N, 100 ft. E of SW cor. of lease.
T.D. 8,942 ft.; flowed at rate 128 bbls. per day for 8 hrs.; went dead; rerunning tubing.

Port Barre—St. Landry Parish

Gulf Ref. Co.'s No. 13 Wilson Cochran, 400 ft. E of W line, 750 ft. E of Texas Co.'s No. 2 Botany Bay, Sec. 4-6s-5e.
Drlg. sand 3,242 ft.

Miscellaneous Wildcats

TEXAS

Austin County

T. F. Wood et al's No. 1 Trenchman, 330 ft. from SE line of a 50-ac. tract, James Cummins Sur.
S.D. 750 ft.

Brazoria County

Gulf Prod. Co.'s No. 1 Wilkes & Smith, 5,510 ft. W along N line of 850-ac. tract from NW cor. of 211-ac. tract, thence 990 ft. S at R/A James Hall Sur.
Moving in.

R. R. Osborne's No. 1 John L. Jones 330 ft. each way out of N cor. of S½ of Lot 7, Blk. 1, J. C. Smith Sur.
Preparing to spud.

Texas Co.'s No. 2 Freeport Sulphur Co., Conception Areola Sur.
Rig up.

Chambers County

Salt Dome Oil Co.'s No. 1 A. B. Lawrence, James Grant Sur., 2,650 ft. NW of SE line, 6,060 ft. SW of NE line.
13⅜-in. csg. at 1,428 ft.

South Gulf Oil Co.'s No. 1 J. T. White, 1,653 ft. from E line, 466 ft. from S line of 1,476-ac. tract, James McGahey Sur.
Location.

Calhoun County

Continental Oil Co.'s No. 2 American National Realty Co., 660 ft. from NW line, 666 ft. from NE line of Sec. 6, Blk. C, Pedro Garcia Sur.
Cut 6-in. csg. 7,114 ft.; will sidetrack.

Colorado County

Trans-State et al's No. 1 Witte, 150 ft. S and E of most westerly NW cor. of H. White Sur.
Drlg. shale 4,712 ft.

Coyle & Concord's No. 1 fee, 550 ft. from N line, 1,950 ft. from E line of Sec. 45, I.&G.N. Sur.
10¾-in. csg. 610 ft.; T.D. 698 ft.

Fort Bend County

Texas Gulf Prod. Co.'s No. 1 K. B. Winston, 1,490 ft. E of W line, 238 ft. N of S line of 350-ac. tract, S. Isaacs Sur.
Rig up.

Thompson Drlg. Co.'s No. 1 T. A. Brown, 150 ft. from W line, 150 ft. from S line of 100.8-ac. lease, George Menefee Sur. Abd. 6,035 ft.

Galveston County

Sun Oil Co.'s No. 1 J. D. Hughes, 200 ft.

SE, 1,000 ft. SW of the NE cor. of W. M. C. Baker Sur.
Location.

Grimes County

Dr. Marshall et al's No. 1-B Todd, 300 ft. from E line and 175 ft. from N line of 160-ac. tract in extreme NW cor. of county (25 ft. N of No. 1).
7-in. csg. 2,678 ft.; T.D. 2,815 ft.; could not bail fluid down in csg.; bailing.

Harris County

Cockburn Oil Co. and Stanolind O. & G. Co.'s No. 1 J. B. Hines, 7,817 ft. NS line and 330 ft. EW line of survey, A. McCormick Sur.
Bldg. derrick.

A. C. Hill's No. 1-A Swilley 5,426 varas E of W line and 1,960 varas N of S line of Sur.-C. Victor Blanco Sur.
Location.

A. C. Hill's No. 1-B Swilley 6,141 varas E of W line, 1,960 varas N of S line of Sur., center of 200-ac. lease, 365 varas S of N line and 773 varas W of E line of lease, Victor Blanco Sur.
Location.

E. E. Young, tr.'s No. 2 P. S. Griffith, 3,476 ft. S of N line, 2,030 ft. E of W line of A. R. Bodman Sur.
Cored from 4,105-08 ft.; coring ahead.

Hardin County

Frank Beaudoin et al's No. 1 Walton, A. L. Lancaster Sur.
S.D. 1,900 ft.

Jefferson County

Jack Frazier et al's No. 1 A. Oswald, 372 ft. N and E line of Oswald 102.6-ac. tract, M. Pevitot Sur.
Drlg. sand 4,710 ft.

Humble O. & R. Co.'s No. 1-B McFaddin, C. T. Cade Sur., 330 ft. from S and W lines of the E 240-ac. tract.
T.D. 3,557 ft.; rig up to drill deeper.

Sun Oil Co.'s No. 1 Herbert & Braussard, 6,890 ft. NW along SW line and 660 ft. NE at R/A to SW line, B. Blackman Sur., Abst. No. 2.
Shale 8,282 ft.; 9⅝-in. csg. 8,210 ft.; making up 2½-in. tubing.

Tatum and Pendergrass No. 1 B. W. Owens, 160 ft. E of W line and 225 ft. S of N line of Lot No. 3, Blk. 9, Range 9, Port Arthur Land Co. subdv., Joseph Grigsley Sur.
Drlg. shale 320 ft.

Matagorda County

Continental Oil Co.'s No. 1 Feife, J. S. Criswell Sur., 3,000 ft. E of W line, 2,800 ft. N of S line of survey.
T.D. 6,073 ft.; shale; rigging up to deepen.

Hammon Exploration Co.'s No. 1 Cleveland, 330 ft. NS line, and WE line of 68-ac. tract, E. Hall Sur.
Rig up.

Helmerich & Payne's No. 1 Hawkins, 850 ft. S, 70 deg. W of Cockburn Oil Co.'s No. 6 Hawkins.
Drlg. shale 5,525 ft.

Horace M. Smith, Inc.'s No. 1 Wadsworth ranch, 150 ft. out of S cor. of Lot No. 8, S. R. Fisher Sur.
T.D. 8,750 ft.; making electrical coring test.

Sterling O. & R. Co.'s No. 1 Baer Estate, 5,274 ft. SW of S cor. of Van Dorn and Bales Sur., 400 ft. NW at right angles in Samuel Hart Sur.
T. D. 1,820 ft.; 10¾-in. csg. set at 1,820 ft.; W.O.C.

Sun Oil Co.'s No. 1 Craig, 1,546.9 ft. SW from N cor. along NW line of lease and survey, thence 157.3 ft. SE at right angles in Thomas Williams Sur.
Rig up.

Montgomery County

Oralline & Bellnoskis' No. 1 T. S. Foster, 660 ft. NW of SE line, 330 ft. NE of SW line, Blk. 97, Wm. Starrock Sur.
S.D. 4,773 ft.

Orange County

Blue Line Oil Co.'s No. 1 J. E. Peet Richard, 900 ft. W of E line and 150 ft. S of N line of most easterly NE cor. of 138-ac. tract, Bailou Sur.
Drlg. gumbo 1,565 ft.

Coker Oil Co.'s No. 1 S. T. Mansfield, 500 ft. S, 500 ft. W from NE cor. of 80-ac. tract, J. W. Hall Sur.
S.D. 1,280 ft.

Smith & Ellis' No. 1 Pell.
T.D. 2,056 ft.; washing to bottom; to make drill stem test.

Polk County

Gulf Prod. Co.'s No. 5 Trinity County Lbr. Co., 1,017 ft. S of NE cor. of H. Y. Rook Sur., 444 ft. E of W line, O. Peterson Sur
Abd. 3,588 ft.

Perry Morgan et al's No. 1 K. H. Root, L. Costillian Sur.
T.D. 28 ft.; R.U.

Refugio County

Cecil Hagen et al's No. 1 Edith Clarkson, 1,736 ft. from N line, 3,820 ft. from E line of J. Coughlin Sur.
Location.

Victoria County

Texas Co.'s No. 1 J. J. Warden, 4,200 ft. N, 55 deg. E and 486 ft. N, 35 deg. W from SW cor. of Warden ranch, Edward McDonough League.
T.D. 5,629 ft.; sidetracked at 4,264 ft.; T.D. 4,494 ft.; 7-in. csg. 4,483 ft.; I.P. 2,510,000 ft. gas per day with 1,850 lbs. pressure on casing and tubing.

Wharton County

Navarro Oil Co.'s No. 1 Schoellman, 330 ft. S of S and E lines, 1,338 ft. from W line of Nasario Mansha Sur.
Abd. 7,732 ft.

Pure Oil Co.'s No. 1 Paige, 1,397 ft. NE and 467 ft. SE from W cor. of 159.37-ac. lease, James Pirie Sur.
Drlg. shale 5,123 ft.

Sterling Oil & Ref. Co.'s No. 1 Frank Janik Sr., 1,859 ft. from N line, 467 ft. W from SE cor. of Janik tract, Johathan Scott Sur.
T.D. 8,667 ft.; 5-in. csg. at 7,831 ft.; flowed salt wtr. with very small show of gas; S.D.

Texas Co.'s No. 1-C Pierce Est., 3,460 ft. NW of SE line of John Caldwell League.
Drlg. sticky shale 4,850 ft.

SOUTH LOUISIANA

Beauregard Parish

Richardson & Martin's No. 1 Southwest Lbr. Co.
Location.

Calcasieu Parish

Fred Oil Co.'s No. 2 Faist, 262 ft. E and 8 ft. S of NW cor. SE¼ Sec. 26-8s-10w.
S.D. 4,051 ft.

Wheeler Oil Corp.'s No. 1 School Lot, 1,708 ft. E, 1,325 ft. N of SW cor. Sec. 16-9s-7w.
S.D. 6,803 ft.

Cameron Parish

Magnolia Pet. Co.'s No. 1 J. B. Broussard, 330 ft. E and S, out of NW cor. of the SW¼ of SE¼ of Sec. 13-12s-9w.
Coring sand 8,339 ft.

Steinberger Pet. Co.'s No. 1 Drew, 330 ft. out of NW cor. NE¼ of Sec. 26-10s-11w.
Location.

East Baton Rouge Parish

Superior Oil & Prod. Co.'s No. 1 Duplanter-Community, 1,500 ft. westerly along the N line from the NE cor. of D. A. and E. A. Duplanter's 130.7-ac. tract, thence 330 ft. at R/A.
T.D. 10,366 ft.; stuck drill stem; shot off at 6,416 ft. and P.B. from 6,675-6,416 ft.; perforated csg. 6,490-6,516 ft.; made drill stem test from 6,490-6,515 ft.; tested est. 300 lbs. water pressure and 1,000,000 ft. of wet gas, ¼-inch choke; sprayed considerable oil.

Evangeline Parish

J. E. Ladue's No. 4 Vidrien, Sec. 34-3-2.
Rig up and S.D.

Sparks-Mitchell and Jacobson's No. 1 Vidrine, 1,114 ft. S, 1,060 ft. W of NE cor. Sec. 47-4s-2e.
Drlg. shale 1,618 ft.

East Feliciana Parish

Thompson Creek Oil Co.'s No. 1 Fannie Noland, 2,600 ft. E and 1,580 ft. N of SW cor. Sec. 70.
S.D. 1,589 ft.

Iberia Parish

Jefferson Lake Oil Co.'s No. 1 State, Twp. 12s-5e.
Drlg. lime and shale 8,190 ft.

Meade Oil Co.'s No. 1 Hamilton, near town of Loze, in the NW cor. of parish, Sec. 38-12-5.
S.D. 200 ft.

Texas Co.'s No. 1 State Fausse Point.
Drill stem stuck at 6,400 ft.

Jefferson Davis Parish

Howard Naylor et al's No. 1 Johnson-Bordeaux, 1,734 ft. N, 52 deg. N, 45 min. E, and 1,853 ft. S, 37 deg. 15 min. E out of SW cor. Sec. 39-10s-3w.
Drlg. shale 3,310 ft.

Shell Pet. Corp.'s No. 1 Lacassan, 990 ft. N, 1,980 ft. E of SW cor. of Sec. 20-11s, 5w.
T.D. 2,550 ft.; preparing to drill plug.

LaFourche Parish

Coastal Oil Co.'s No. 2 Constantine, 1,476 ft. N, 809 ft. E of SW cor. Sec. 26-21-22e.
Location.

St. Bernard Parish

F. F. Kramer's No. 1 Robinson, 200 ft. S, 200 ft. W of NE cor. of Sec. 78-14s-14e.
T.D. 100 ft.; reported slight gas show.

Emerald Pet. Corp.'s "Shell Beach Properties" No. 1, on S edge of Bayou Louis, Sec. 31-13s-15e.
T.D. 7,385 ft.; stuck drill stem; drlg. shale in sidetracked hole at 2,105 ft.

St. Martin Parish

Texas Co.'s No. 1 State Lake, 5,180 ft. E, 350 ft. N of SW cor. of Sec. 10-10s-9e.
Drlg. shale 4,180 ft.

Tide Water Oil Co.'s No. 1 Smedes, 990 ft. from N and E lines of 1,000-ac. tract, Sec. 57-11e-6w.
Drlg. shale 2,961 ft.

Plaquemines Parish

Lo-Tex Explin. Co.'s No. 1 Hero Plantation, Sec. 72-14s-24e.
Fishing 5,343 ft.

Southern Sulphur Co.'s No. 1 Manhattan Fruit Co.
Drlg. shale 2,810 ft.

Rapides Parish

Amerada Pet. Corp.'s No. 1 Wells Land Co., 490 ft. from W line, 2,460 ft. from S line of Sec. 53-1s-2e.
Reaming; T.D. 6,015 ft.; no report.

St. Tammy Parish

Danciger O. & R. Co.'s No. 1 Holdsworth, C NW¼ SE¼ Sec. 26-8s-14e.
19-in. csg. at 20 ft.

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Vermillion Parish

Delcambre & Shelton's No. 1 Adam Delcambre, south degrees E. 1326 ft. from most northerly cor. of irregular Sec. 62-17-5.
Drlg. shale 2,110 ft.

Terrebonne Parish

Dulac Oil Co.'s No. 1 Bourg, Sec. 10-20-17e.
Fishing 4,600 ft.

LA.-ARK. WILDCATS

(Rotary operations unless otherwise designated)

NORTH LOUISIANA

Avoyelles Parish

Bell Oil Co.'s No. 2 Thompson-Koltz, 450 ft. S, 350 ft. E, NW cor. Sec. 11-2n-5e. Partly R.U. and S.D.

Bossier Parish

Ark.-La. Gas Co.'s No. 3 R. O Roy, 748 ft. N, 1,270 ft. E, SW cor. Sec 18-17-11. Coring 4,138 ft.

Bossier O. & G. Co.'s No. 3 Sherrill, 330 ft. N and W, SE cor. Sec. 13-19-12. Drlg. 2,100 ft.

W. E. Neil's No. 1 Curtis Plant, Sec. 19-17-12.
S.D. 330 ft.

Producers O. & G. Co.'s No. 1 Pettitt, 330 ft. S and W, NE cor. NW Sec. 17-17-11. Set 12½-in. 216 ft.; drlg. 1,135 ft.

Producers O. & G. Co.'s No. 1 Edwards, 660 ft. N and W, SE cor. Sec. 27-18-11. S.D. 704 ft.

Douglas Spivey et al's No. 1 Bossier Dev. Co., 330 ft. N and E, SW cor. Sec. 16-18-11.
Dry and abd. 815 ft.

Caddo Parish

J. Ed Bailey, tr.'s No. 1 Hartzo, NW cor. NE NW Sec. 28-22-16.
S.D. 1,236 ft.

John D. Bialock's No. 2-A Seybert, 270 ft. N and 320 ft. E of C Sec. 17-20-15.
Drlg. 1,100 ft.

J. M. Collins' No. 1 fee, 2,042 ft. N, 334 ft. E, SW cor. Sec. 4-20-15.
Set 6-in. 2,000 ft.

Holly Oil Co.'s No. 1 Thigpen & Herold, Sec. 15-20-15.
T.A. 2,293 ft.

F. D. Hyde's No. 1 Thigpen & Herold, 350 ft. S and E, C Sec. 5-15-15.
Hole clean W.O. 1,535 ft.

A. D. King, tr.'s No. 1 Roach, 641 ft. E, 375 ft. N, SW cor. SE Sec. 4-14-16.
Tested S.W.; arranging to deepen from 2,712 ft.

Leonard Co.'s No. 3 Dickson, 1,625 ft. S, 587 ft. E, NW cor. Sec. 26-21-15.
Comp. pumping 12 bbls. 2,230 ft.

Leonard Co.'s No. 46 Crystal, 350 ft. N and W, SE cor. SW NE Sec. 13-21-15.
Comp. pumping 5 bbls. 1,942 ft.

Max Brandt's No. 1 Hughes, SW cor. NE NW Sec. 15-20-15.
Tested 500,000 ft. gas; S.D.; W.O. 2,206 ft.

Puritan Oil Co.'s No. 1 Land, 550 ft. E, 250 ft. N, SW cor. Sec. 4-20-15.
Set 6-in. 2,123 ft.

A. C. Scott et al's No. 1 Noel Est., 330 ft. S and E, NW cor. Sec. 22-20-15.
W.O.S.R. 2,241 ft.

Shreveport Oil Corp.'s No. 2-G Muslow, 750 ft. S, 578 ft. W, NE cor. NW Sec. 9-20-15.
W.O.S.R. 2,185 ft.

Triangle Agency's No. 1 Ellerbe, 872 ft. E, 89 ft. N, SW cor. NW Sec. 4-20-15.
W.O.S.R. 2,162 ft.

Ty-Stan, Inc.'s No. 1 Jolly, 400 ft. S and E, NW cor. SW SW Sec. 22-22-15.
Coring 2,300 ft.

Caldwell Parish

Caldwell Drlg. Co.'s No. 2 Gore, 280 ft. S, 600 ft. W, NE cor. SE Sec. 26-12-3e.
S.D.; W.O. 768 ft.

Critchett & Woods' No. 1 Kyles, NE cor. SW NE Sec. 18-11-3e.
Coring 1,695 ft.

G. W. Zeigan et al's No. 1 La.-Central Lbr. Co., 175 ft. S and E, NW cor. SW SW Sec. 25-13-3e.
S.D. 1,309 ft.

Catahoula Parish

McIntyre et al's No. 1 Tensas, 1,740 ft. S, 990 ft. E, NW cor. Sec. 18-10-4e.
Set 10-in. 147 ft.

Claiborne Parish

J. H. Lester's No. 1 Green, 330 ft. S and W of NE cor. NE NW Sec. 18-21-6.
Set 10-in. 150 ft.; drlg. 700 ft.

E. T. Oakes' No. 1 H. W. Patton Est., 660 ft. S and W, NE cor. Sec. 1-20-5w.
Drlg. 3,600 ft.

Ryan Oil Corp.'s No. 1 F. A. Gladney, 660 ft. S, 330 ft. E, NW cor. SE Sec. 10-23-16.
Rigging up.

De Soto Parish

E. B. Bird et al's No. 1 J. H. Johns, 330 ft. N and W, C Sec. 26-14-4.
Arrng. set short string 4½-in. 2,650 ft.

Century Drlg. Co.'s No. 1 D. Bailey, 440 ft. S and W C Sec. 25-11-14.
Drlg. 1,810 ft.

DeSoto Pet. Co.'s No. 1 B. T. Wemple, C 8½ SE NE SW Sec. 14-13-11.
Arranging to set csg. 2,500 ft.

Sam Goldman's No. 1 G. R. Stell, 330 ft. S and W, NE cor. Sec. 5-12-14.
S.D. 200 ft.

Hunter Co.'s No. 1 S. J. Moats, 330 ft. S and 1,320 ft. W of C Sec. 25-12-15.
Set 10-in. 202 ft.; drlg. 2,055 ft.

Jet Drlg. Co.'s No. 1-A Scales, 330 ft. N and E, SW cor. SE SE Sec. 35-13-12.
S.D. 2,200 ft.

Leslie Prod. Co.'s No. 1 Ramsey, 150 ft. N and W of C Sec. 36-11-11.
Set 10-in. 45 ft.

National Oils, Inc.'s No. 1 B. T. Wemple, NW SW Sec. 14-13-11.
S.D. 120 ft.

C. T. Ruffin's No. 2 Lee, 150 ft. N, 660 ft. E, SW cor. NW SW Sec. 32-14-13.
Drlg. 2,415 ft.

Grant Parish

Alexander et al's No. 1 Maxwell, Sec. 9-9-1e.
S.D. 525 ft.

Lincoln Parish

Herman L. Brown's No. 1 Monstead, 1,320 ft. S, 660 ft. E of C Sec. 10-17-4w.
Coring 5,260 ft.

Madison Parish

San. Land & Exploration Co.'s No. 1 Delta Land Co., Sec. 1-17-12e.
S.D. 1,980 ft.

Morehouse Parish

Zeiger & Bacon's No. 2 Crossett Lbr. Co., 3,870 ft. N, 595 ft. E, SE cor. SE SW of Sec. 36, in Sec. 41.
S.D. 50 ft.

Ouachita Parish

American Liberty Oil Co.'s No. 1 Golson, C NW Sec. 25-17-1e.
Arrng. set 5-in. 5,200 ft.; T.D. 5,360 ft.

Hamilton Gas Co.'s No. 2 Park, 830 ft. S, 232 ft. E, NW cor. Sec. 1-19-3e.
Set 6-in. 2,121 ft.

Inabnet & Piper's No. 1 Douglas, 122 ft. E and 396 ft. S of NW cor. NE Sec. 31-19-4e.
Comp. 2,000,000 ft. gas 2,158 ft.

Inabnet & Piper's No. 3 D'Arbone, 660 ft. N and W, SE cor. Sec. 28-19-3e.
Comp. 500,000 ft. gas 2,169 ft.

T. G. Sandidge's No. 1 Rowland, 2,376 ft. E, 679 ft. N, SW cor. Sec. 18-18-5e.
Set 12½-in. 185 ft.; drlg. 600 ft.

Rapides Parish

Amerada Pet. Co.'s No. 1 Weil, 2,450 ft. N, 550 ft. E, SW cor. Sec. 53-1e-2e.
Reaming to bottom 6,915 ft.

Natchitoches Parish

Ab Jones' No. 1 Brown Lbr. Co., 400 ft. N, 330 ft. W, SE cor. Sec. 5-10-10.
S.D. 1,033 ft.

Howard & Kittrell's No. 1 DeBlieux, 1,395 ft. E, 150 ft. S, NW cor. Sec. 32-10-7.
S.D. for fuel 1,400 ft.

Red River Parish

J. S. Tuffree's No. 1 Wilkinson, 1,320 ft. S and W, NE cor. Sec. 11-12-11.
S.D. 1,395 ft.

Sabine Parish

B. S. & M. Oil Co.'s No. 1 Tatum, 330 ft. S and E, NW cor. NW SE Sec. 32-8-13.
Tested dry; S.D.; W.O. 2,100 ft.

G. H. Collins' No. 5 Cranford, 330 ft. N and E SW cor. SE SE Sec. 20-9-13.
Drlg. 500 ft.

Hill Myers' No. 1 Magness, Sec. 30-9-13.
Comp. pumping 40 bbls. 1,786 ft.

Jack Lent's No. 1 Williams, Sec. 13-7-11.
Set 7-in. 2,451 ft.; drlg. 2,730 ft.

Geo. L. Pace's No. 4 DeSoto Corp., 330 ft. S and W NE cor. SE SE Sec. 27-10-13.
Set 10-in. 40 ft.; drlg. 820 ft.

Lee Whitehurst's No. 4 Frost Lbr. Ind., 660 ft. N and 330 ft. E of SW cor. Sec. 20-9-13.
S.D.; rig repair 1,995 ft.

Union Parish

Nemours Corp.'s No. 2 G. W. Halle, 660 ft. S and E, NW cor. Sec. 1-21-3e.
Drlg. 110 ft.

Southern Carbon Co.'s No. 4 Grayling Lbr. Co., 600 ft. S, 1,900 ft. E, NW cor. Sec. 23-21-4e.
Set 7-in. 2,053 ft.

Southern Prod. Co.'s No. 1 Clark, 500 ft. N and W, SE cor. NW NW Sec. 17-23-1e.
S.D. 2,296 ft.

Webster Parish

Bennett & Eldred's No. 1 Fulbright, NE NE Sec. 1-18-10.
S.D. 2,200 ft.

Winn Parish

Parsons et al's No. 1 Tremont Lbr. Co., 660 ft. S, 330 ft. E NW cor. SW Sec. 10-12-2w.
S.D. 1,130 ft.

ARKANSAS

Arkansas County

Grand Prairie Realty Co.'s No. 2 Fischer 412 ft. S, 12 ft. W, NE cor. NW NW Sec. 6-6-4w.
T.D. 1,628 ft.

Ashley County

Benedum & Trees' No. 1 Holmes, C NE SW Sec. 4-17-5.
Drlg. 2,700 ft.

Texas Seaboard Oil Co.'s No. 1 Bynum, 330 ft. N and W SE cor. SW NW Sec. 34-17s-4w.
Set 7-in. 652 ft.; drlg. 1,500 ft.

Columbia County

J. G. Cubage et al's No. 1 Rhea, 150 ft. N line, 330 ft. E, SW cor. SE SE Sec. 12-17-22.
S.D. 3,506 ft.

Southern States Gas Co.'s No. 1 Piney Woods Lbr. Co., 330 ft. N and E, SW cor. NE NW Sec. 10-20-22.
Drlg. 1,565 ft.

Dallas County

McCall & Kelly's No. 1 Ray Owen, 330 ft. S and E, NW cor. NW SW.
Drlg. 1,125 ft.

Hempstead County

G. L. Glass, tr.'s No. 1 May B. O'Bier, Sec. 33-13-23.
Derrick.

F. W. Martin's No. 2 Lafferty, C NW Sec. 17-14-24.
Rigging up.

LaFayette County

Earl F. Fox' No. 2 Coleman Bros., NE NE Sec. 30-16-24.
Set 10-in. 135 ft.

Kamon & Neely's No. 1 Cockran, NW cor. SE SW Sec. 26-19-25.
S.D. 4,450 ft.

Joe Modisett's No. 1 Red River Lbr. Co., C SW SW Sec. 21-19-14.
Drlg. 2,755 ft.

Riggs Bros.' No. 1 Dubose, SE cor. SW NW Sec. 35-15-24.
S.D. 2,500 ft.

Transportation Pet. Co.'s No. 1 Cockran, 300 ft. S and W, NE cor. SE Sec. 26-19-25.
Coring 2,340 ft.

Miller County

M. D. K. Fitzwater's No. 1 E. H. Beck, 150 ft. N and E, SW cor. NW SW Sec. 34-15-26.
W.O.S.R. 2,919 ft.

C. W. Hayes' No. 1 State, 316 ft. E and 200 ft. N of SW cor. SE NE Sec. 31-15-25.
Set 10-in. 120 ft.

King Oil Corp.'s No. 1 G. W. Crank, SW NE Sec. 19-16-25.
Drlg. 2,375 ft.

C. V. Lenz's No. 1 A. Dean, NW cor. SE Sec. 24-15-26.
Moving in rig.

L. H. Mahon et al's No. 1 Miller Land & Timber Co., SW cor. SE Sec. 29-18-27.
S.D. 150 ft.

Two Forty Oil Co.'s No. 2 Beck, SE cor. NW SE Sec. 33-15-26.
Dry and abd. 2,945 ft.

Nevada County

Carnett et al's No. 1 Floyd Munin, C SW Sec. 16-14-22.
S.D. 50 ft.

Ouachita County

Benedum & Trees' No. 1 H. Brighton, C NE SW Sec. 29-14-19.
Set 12½-in. 283 ft.; drlg. 900 ft.

Snow-Black Pet. Co.'s No. 1 Bedford, 630 ft. N and 150 ft. E, SW cor. Sec. 32-11-18.
Fishing for D.S. 1,938 ft.

Poinsett County

Rockwell Dev. Co.'s No. 1 W. A. Smith, NE NE Sec. 13-11n-3e.
Drlg. 2,310 ft.

Sevier County

Pendleton & Vaughn's No. 1 Dierks, C NW NE Sec. 14-10-29.
Moving in; spudding rig 65 ft.

Union County

Arkansas Southern Oil Co.'s No. 1 F. R. Laney, Sec. 28-18-16.
Installing larger rig 175 ft.

Gardy Drlg. Co.'s No. 1 Craig, Sec. 25-17-15.
S.D. 2,211 ft.

Mrs. R. K. Jones et al's No. 1 Davis, 330 ft. N and W, SE cor. NW NW Sec. 28-16-14.
Arranging to test 3,297 ft.

Lion Oil Ref. Co.'s No. 7 Hardy-Murphy, 510 ft. N, 200 ft. W, SE cor. NE NW Sec. 9-16-15.
W.O.S.R. 2,320 ft.

Marine Oil Co.'s No. 8-E Thompson, 330 ft. N and E, SW cor. SW SE Sec. 2-18-13.
S.W. and abd. 3,592 ft.

Richardson & Proetz et al's No. 1 Galion Lbr. Co., 330 ft. S and E, NW cor. NW SE Sec. 10-16-14.
S.D. 3,500 ft.

MISSISSIPPI

Bolivar County

White & Jones' No. 1 Ballou, SE SE NW Sec. 17-24n-7w.
S.D. 1,614 ft.

Clarke County

L. Beckwith et al's No. 1 Long Bell Lbr. Co., 538 ft. S, 125 ft. W of C Sec. 10-1n-16e.
T.A.; lack of funds.

Clarke County Oil Co.'s No. 1 Dora Butler, C SW SW Sec. 15-2n-16e.
Set 10-in. 63 ft.

Greene County

United Gas Pub. Ser. Co.'s No. 1 William Unit, 200 ft. N, 100 ft. W, C SW Sec. 6-15-8w.
Drlg. 2,550 ft.

Harrison County

Big Ridge Oil Co.'s No. 1 Hinzin, NE Sec. 13-7s-10w.
S.D.; W.O. 1,100 ft.

Lafayette County

W. L. Stewart et al's No. 1 Russell, 1,320 ft. N, 1,720 ft. E, SW cor. Sec. 9-10s-1w.
Drlg. 2,670 ft.

Lauderdale County

Bob Dalton's No. 1 Bounds, Sec. 34-7n-15e.
S.D.; W.O. 1,600 ft.

Warren County

H. W. Elliott et al's No. 2 R. L. Parker, 780 ft. E, 1,570 ft. S, NW cor. Sec. 14-14n-1e.
S.D.; W.O. 1,600 ft.

Washington County

Perkins & Dees' No. 1 Lee, 1,500 ft. E, 500 ft. N, SW cor. Sec. 33-15n-3w.
S.D. 2,175 ft.

Winston County

Jack Vale et al's No. 1 Moody, 713 ft. N, 667 ft. E, SW cor. NW SW Sec. 3-13n-14e.
Set 6-in. 2,212 ft.

ALABAMA

Houston County

Rice O. & G. Co.'s No. 1 Oakley Est., SE cor. NW SW Sec. 9-3n-29e.
S.D. 3,035 ft.

Lamar County

DeSoto O. & G. Corp.'s No. 1 Gardner, Sec. 22-15s-16w.
Drlg. 4,705 ft.

Mobile County

J. C. Prine's No. 1 C. H. M. King, N½ NE Sec. 4-1n-4w.
Drlg. 2,890 ft.

FLORIDA

Lake County

Oil Dev. Co. of Florida's No. 1 South Lake, SE SE Sec. 17-24s-25e.
S.D. at 1,946 ft. after coring 75 ft. of lime; awaiting acid treatment.

LA.-ARK. PROVEN

NORTH LOUISIANA

Caddo—Rodessa

Ark.-La. Gas Co.'s No. 4 Rodessa Oil & Land Co., 590 ft. S, 588 ft. E, NW cor. NE Sec. 22-23-16.
Rigging up.

Ark.-La. Gas Co.'s No. 3 Rodessa O. & Land Co., 1,945 ft. S, 719 ft. W, NE cor. Sec. 22-23-16.
Drlg. 4,934 ft.

Ark.-La. Gas Co.'s No. 1 J. S. Teamer, 330 ft. N and 660 ft. W, SE cor. SW SE Sec. 13-23-16.
Comp. 92,200,000 ft. gas 6,105 ft.

Eastern Texas Prod. Co.'s No. 1 Caddo School Board, CSL NE SW Sec. 23-23-16.
Coring 5,850 ft.

Haynes Prod. Co.'s No. 2 T. F. Sexton, 665 ft. N, 660 ft. E, C Sec. 14-23-16.
Derrick.

Haynes Prod. Co.'s No. 2 Otwell, 660 ft. N and 330 ft. E of SW cor. Sec. 14-23-16.
Set 12½-in. 268 ft.; drlg. 900 ft.

Haynes Prod. Co.'s No. 3 W. B. Lawton, 1,980 ft. N, 990 ft. E, SW cor. Sec. 14-23-16.
Set 7-in. 5,832 ft.; T.D. 5,850 ft.

Haynes Prod. Co.'s No. 1 T. F. Sexton, 660 ft. S and E of C Sec. 14-23-16.
Drlg. 5,632 ft.

Haynes Prod. Co.'s No. 1 Harry Otwell, 660 ft. N, 560 ft. W, SE cor. Sec. 15-23-16.
Comp. 220 bbls. per hour, 1¾-in. choke 6,000 ft.

W. M. Layton et al's No. 1 Tyson, 325 ft. N, 380 ft. W, C Sec. 22-23-16.
Drlg. 50 ft.

R. W. Norton's No. 2-A Caddo Levee Board, 1,320 ft. S, 660 ft. E, C Sec. 21-23-16.
Derrick.

R. W. Norton's No. 1 Tyson heirs, 1,980 ft. E, 660 ft. S, NW cor. Sec. 13-23-16.
Drlg. 3,910 ft.

R. W. Norton's No. 1 Fosque, 1,980 ft. N, 660 ft. W, SE cor. Sec. 20-23-16.
Drlg. 3,984 ft.

R. W. Norton's No. 1 Caddo Levee Board, 660 ft. N and W, SE cor. NE Sec. 31-23-16.
Set 5⅝-in. 5,922 ft.; T.D. 6,000 ft.

Pelican Oil & Gasoline Co.'s No. 1 Sexton, 660 ft. S and W, NE cor. SE Sec. 14-23-16.
Deepened to 6,078 ft.; testing.

United Gas Public Service Co.'s No. 1 Ardie & Co., 660 ft. N, 1,980 ft. W, SE cor. Sec. 14-23-16.
Derrick.

United Gas Public Service Co.'s No. 1 Rodessa Oil & Land Co., 660 ft. S and W, NE cor. Sec. 22-23-16.
Set 5⅝-in. 5,315 ft.; T.D. 5,330 ft.

United Gas Public Service Co.'s No. 1 W. M. Bremer, 1,980 ft. N and 660 ft. E, SW cor. Sec. 22-23-16.
Comp. 213 bbls. per hour, ¾-in. choke 6,008 ft.

United Gas Public Service Co.'s No. 1 Gibson Est., 660 ft. N, 1,980 ft. W, SE cor. Sec. 15-23-16.
Set 5⅝-in. 5,962 ft.; T.D. 6,004 ft.

United Gas Public Service Co.'s No. 1 Rodessa Oil & Land Co., 1,980 ft. N and 660 ft. W, SE cor. Sec. 15-23-15.
Testing 6,014 ft.

United Gas Public Service Co.'s No. 1 Thomas Unit, 634 ft. S, 1,962 ft. E, NW cor. Sec. 23-23-16.
Comp. 225 bbls. per hour, ¾-in. choke 6,039 ft.

G. H. Vaughn Prod. Co.'s No. 1 Hunter-Derryberry, 990 ft. S, 1,804 ft. E, NW cor. Sec. 14-23-16.
Drlg. 3,618 ft.

G. H. Vaughn Prod. Co.'s No. 1 T. M. Comegys, 330 ft. N and E, SW cor. SE SE Sec. 10-23-16.
Drlg. 4,284 ft.

Sabine Parish—Zwolle

Alexander & Crane's No. 1 Fogman, SE

JERGUSON

REFLEX GAGES

are ideal for gasoline, kerosene, steam, oil. No matter what the color of the liquid, they show the level in BLACK.

The *empty* space appears WHITE

The *Liquid* shows BLACK

Safe and durable at highest pressures and temperatures. Furnished with or without valves for every type of service. Write us.

Jerguson Gage & Valve Co.
Mystic Ave. and Northern Artery
SOMERVILLE, MASS.

Hedge Against Inflation

A 5,000-acre ranch for sale on the beautiful Leona River situated seven miles from Uvalde, Texas. Gravity irrigation and unfailing supply of water available for twenty-five hundred acres of rich fertile valley land. Includes largest irrigated Pecan Grove in America, consisting of 10,000 paper shell pecan trees six years old in prime condition. Pure cold river water, wonderful climate especially for asthma or kindred ailments.

For further information write to owner,

Lane Taylor
UVALDE, TEXAS

cor. N½ SW NE Sec. 18-7-11.
S.D. 2,655 ft.
Ivan A. Allen No. 1 Travis, 330 ft. S and W of NE cor. NE NW Sec. 13-7-11.
Rigging up.
Hunter Co.'s No. 17 Sabine Lbr. Co., C S½ Sec. 7-7-11.
Dry and abd. 2,910 ft.
H. C. Maulding's No. 1 Davis, 350 ft. N and W, SE cor. NE NE Sec. 2-7-11.
S.D. 400 ft.

EAST TEXAS

(Border Counties)

Harrison County

R. C. Payne et al's No. 1 Lowery, H. D. Spain Sur.
P.B. to 3,524 ft.

Marion County

Ed S. Holman's No. 1 Henderson, R. Bennington Sur.
P.B. to 2,443 ft.

Panola County

R. A. Graddy's No. 1 M. J. McCormick. J. McAdams Sur.
Drlg. 2,675 ft.
George Hudson et al's No. 1 J. F. Nail, C. McGeary Sur.
Set 8-in. 40 ft.; fishing for core bbl. at 3,345 ft.
Geo. Le Grand's No. 1 P. J. Wardleigh, A. Thompson Sur.
Set 10-in. 62 ft.
R. W. Price's No. 1 Crawford, J. A. Williams Sur.
Set 10-in. 64 ft.
Fred Stovall Drlg. Co.'s No. 1 H. D. Ivey, P. Martin H.R.S.
S.D. for csg. 1,980 ft.

Shelby County

Cliff Stoval's No. 1 Pickering Lbr. Co., C. H. Patterson Sur.
S.D.; rig repair, 1,485 ft.

S. W. TEXAS WILDCATS

Week Ending October 12

Atascosa County

Robert McIntyre's No. 1 Billimek, 1,104 ft. SW line, 3,700 ft. SE line, J. D. Woodruff Sur. No. 246.
Location.

Bandera County

Plateau Oil Co.'s No. 1 Garrison, G.C.&S.F. Sur. No. 506, 1,500 ft. from W and 2,970 ft. from N lines of survey.
Drlg. hard shale 4,348 ft.
Palm Winn Oil Co.'s No. 1 Watson, 600 ft. N of center line, Sur. 71 (workover).
T.D. 2,035 ft.; reset csg.

Bastrop County

Martz & Bearuns' No. 1 Ella Scott, 600 ft. NW line, 150 ft. SW line, 200-ac. tract, McMullen Sur.
Location.

Bee County

D. V. Smith et al's No. 1 Atkins, M. M. Wood Sur.
Rigged up; standing.

Bexar County

Fay Chew's No. 5 Jones, Sec. 9, Pena Sur., 1½ miles E of Adkins.
S.D. 660 ft.
Jas. B. Cunningham's No. 1 L. F. Ridder, 950 ft. S of Nelson Road, 1,300 ft. from E line, Block 5,196, Sur. No. 58.
T.D. 860 ft.; S.D.
Dorine Oil Co.'s No. 2 Tudyk, 400 ft. E line, 260 ft. S line, 315-ac. tract, Cordenas Sur.
T.D. 760 ft.; P.B. 610 ft.; prep. to comp.
Joe Dupree's No. 2 Coffey, 995 ft. SW line, 910 ft. SE line lease, Rodriques Sur.
Skidding derrick.
C. J. LeComte's No. 1 Herbst, 150 ft. out of SW cor. of Manuel Leal Sur.
T.D. 370 ft.; dry and abd.
McPhee & Briggs' No. 1 F. Lamb, 9,200 ft. from S line, 800 ft. from W line of Sur. No. 8 (Manuel de Luna).
Coring 2,457 ft.
Mid-Texas Prod. Co.'s No. 1 C. G. Walker, 330 ft. out of NE cor. Lot 21, S. M. Dobie Sur. No. 79.
Drlg. 2,127 ft.
Morgan & Magna's No. 1 Kirkwood, Desaque Sur., 9 miles SW of San Antonio.
Location.
Bert Mowinkle's No. 1 Kotsur, 434 ft. N line, 150 ft. W line, Loringville Sur.
Rigging up.
J. H. Parker's No. 1 McCloskey, 150 ft. W line, 1,525 ft. N line, tract, Desaque Sur.
T.D. 530 ft.; S.D.
Carroll C. Raborn's No. 1 Claude McCauley, 150 ft. from N and NW lines of tract in Sec. 52, Wm. Harrison Sur.
T.D. 950 ft.; standing.
Fred Thorman's No. 1 Sahn, 330 ft. E line, 600 ft. S line of tract, Sur. No. 3.
Spudded in; standing.

Blanco County

H. R. Roe & W. E. Nixon's No. 2 Polk-Morrisey, 1,545 ft. N line, 890 ft. E line, 222-ac. tract, Thos. Webb Sur. No. 91.
Drlg. 265 ft.

Brooks County

Winfield and Mosser's No. 1 Singer, 660 ft. N and E lines, SE¼ Sec. 312.
No report.

Caldwell County

Clark & Crouch's No. 1 Jolly, 310 ft. SW line, Crenshaw Sur., 4,950 ft. NW line, House Sur.
Cored Edward sand 1,387 ft.; set csg. 972 ft.; W.O.C.
J. J. Elam's No. 1 Brown, 450 ft. SE and SW lines of lease, Souvereign Sur.
Derrick.

Cameron County

Joseph Anderson's No. 1 Browne, 330 ft. N line, Blk. 379, San Benito Subd., Espirito Santo grant, 3 miles N Rio Hondo.
Standing 5,195 ft.
Kingwood & Daniels' No. 1 Port Isabel, Share 29.
Spudded in; S.D.

Dewitt County

Reginald F. Baurke's No. 1 W. C. Steinman Est., 937 ft. from N and S lines, Uriah Blue 1-3 League.
Sand 4,406-08 ft.; show gas; S.D. for repairs.
D. G. Glaspier's No. 1 Schuebel, 330 ft. from S and W lines of tract, Fitzgerald grant.
Set surface csg.; moving in larger rig.

Dimmit County

Diamond Half Oil Co.'s No. 1 Eardley Est., 2,390 ft. SW line, 330 ft. NW line, E. A. McCorquodale Sur. No. 6.
Drlg. 2,470 ft.
Joe Lundin's No. 1 Nueces Sand, 330 ft. NE line, cor. Lot 16, Blk. 7.
Location.

Duval County

J. H. Chandler's No. 1 Rita Pena, 1,325 ft. of NW line, 3,825 ft. of SW line, Share 4, Mesquite grant.
T.D. 3,460 ft.; standing.
Magnolia Pet. Co.'s No. 1 D.C.R.C.-Lentz, 330 ft. S and E lines, Sur. 155.
Derrick.
A. E. Masterson's No. 1 Rogers, 2,310 ft. NE line, 1,650 ft. SE line, 40-ac. tract, H.&G.R. R.R. Co. Sur. 15.
Location.
Plymouth Oil Co.'s No. 1 Cuellar, 330 ft. NW and NE lines, Sur. 123.
S.D.; T.D. 3,128 ft.
Rogers O. & G. Co.'s No. 1 Smith-Corbill Est., 330 ft. S and W lines, NW¼ Sur. 494.
Location.
Santa Clara Oil Co.'s No. 1 Corbett, center N½, NW¼ Sec. 92.
Coring Loma Novia sand 2,979 ft.
Santa Clara Oil Co.'s No. 1 Sevier, Blk. 7, T.N.&O. Sur.
T.D. 4,013 ft.; dry and abd.
Texla Oil Corp.'s No. 1 N.L.&L. Co., 330 ft. from S and W lines, NE¼, Sur. 101, B.S.&F. Sur.
Spudded in.

Edwards County

Paul Teas' No. 1 Stewart, C SE¼, Sec. 2, G.C.&S.F. Sur.
Location.

Frio County

W. D. Bacon's No. 1 Burns, 2,500 ft. S and W line, Thomas Clifton Sur.
Drlg. 1,610 ft.
Midland Oil Co.'s No. 1 Halff & Oppenheimer, 330 ft. S and W lines, Sur. 11.
Drlg. 1,960 ft.

Goliad County

Hendricks et al's No. 1 Gillette, 330 ft. of NW and SW lines of tract, G. Gomez Sur.
Location.
Keystone Royalty Co.'s No. 2 M. Woods, 330 ft. S and E lines, SE¼ 160-ac. tract, Sec. 13, Josefa Rios Sur.
Drlg. 4,980 ft.

Gonzales County

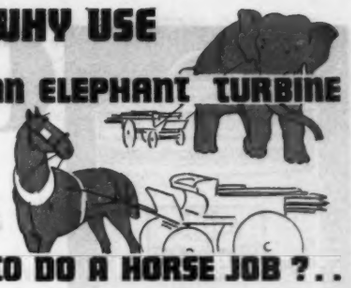
S. W. Forrester Oil Co., Inc.'s No. 1 Stein, 475 ft. of SW line, 1,033 ft. of SE line, 311-ac. tract, Bane Sur.
Set surface csg.; S.D.
Interallied Pet. Co.'s No. 1 Wells, 1,703 ft. S line, 185 ft. W line, Sec. 3, 648-ac. subvd., Wells Ranch.
Bane Sur.
Drlg. Taylor marl 2,734 ft.
Resource Prod. Corp.'s No. 1 Hanbeck, 708 ft. NW line, 1919 ft. SW line, Salinas Sur.
Spudded in; S.D.

Guadalupe County

J. E. Clark's No. 1 Larison, 150 ft. E line road, Davis Sur.
Drlg. 2,452 ft.
J. Harper's No. 1 Flucher, 220 ft. NE line (Creek), 150 ft. NW line tract, Robert Smith Sur. No. 16.
S.D. 1,650 ft.
Hopkins Bros. No. 1 Gabriel, 150 ft. NE and SE lines lease, Geo. Allen Survey.
No report.
R. C. Robbins' No. 1 Manford, 1,200 ft. E line, 750 ft. S line, 100-ac. tract, Hodges League.
Spudded in.
W. T. Scrutchin's No. 1 A. H. Smith, 150 ft. from E line, 1,350 ft. from N line of 34.5-ac. tract, Jas. B. Cowan Sur.
T.D. 835 ft.; S.D.

Hidalgo County

Downey & Morton's No. 1 Daskom, 450 ft. from E line, 55 ft. from S line of Blk. 34, Por. 46.
T.D. 4,115 ft.; perforating and testing.
Gulf States Oil Co.'s No. 1 Delta Orchards, 580 ft. from N line, 400 ft. W line, Lot 2, Blk. 73, Las Westanas Grant.
Rigging up.
Lenagraf-Walden-Carmen's No. 1 Brock & Showers, 330 ft. W line, 615 ft. S line, Lot 4, Blk. 12, Por. 80.
Spudded in.



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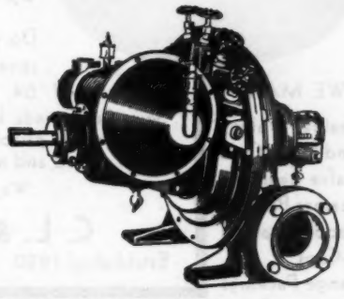

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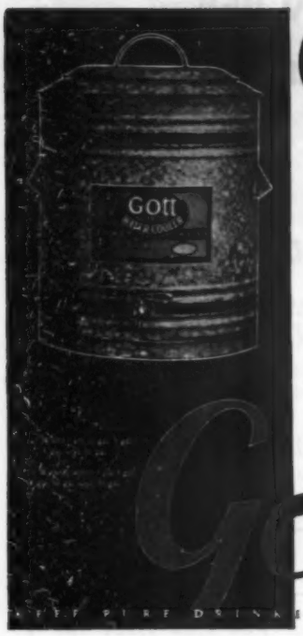

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Sloan et al's No. 1 Brock & Showers, 250 ft. S and W lines, Lot 9, Blk. 16, Por. 47 T.D. 6,003 ft.; oil and gas show 4,600-4,700 ft.; set csg. 4,700 ft.

Jim Hogg County

S. L. Miller Oil Co.'s No. 1 Yeager, 150 ft. E line, 477 ft. S line, Blk. 6, Sur. 20. Rigging up.

Miller & Pippin's No. 1 Yeager, 527 ft. S line, 150 ft. E line of Blk 6 Sur. 20. T.D. 3,630 ft.; dry and abd.

G. C. Rankin's No. 1 Vela, NW cor. Lot 6, Sec. 5. T.D. 63 ft.; temp. abd.

Jim Wells County

Putnam & Stewart's No. 1 Hawkins, 1,200 varas N, SW cor. lease, at R.R. and lease point, thence 1,200 varas W. Spudded in; laying wtr. and gas lines.

Karnes County

Marts Pet. Co.'s (Harris & Jecker), No. 1 Cochran, 150 ft. from S line, 360 ft. from E line, McConnel League. S.D. 300 ft.

R. G. Tonkin's No. 2 Henke, 3,670 ft. from SW cor., 330 ft. from W line (location changed). Location.

Kendall County

J. C. Freeman's No. 1 J. M. Gerffers, 1,200 ft. out of SW cor. of 119-ac. tract, Mara Hodgson Sur., Sec. 796. T.D. 102 ft.; S.D.

Southwestern Dev. Co.'s No. 1 Werner 765 ft. W line, 1,645 ft. N line, J. F. Torrey Sur. No. 781. Drlg. 785 ft.

Kerr County

Auld and Evans' No. 1 Heffner, 660 ft. N line, 330 ft. E line, Sec. 13, B.S.&F. Sur. Spudding in.

Eastland Oil Co.'s No. 5-E Love, 1,550 ft. E line, 300 ft. N line, Sur. 1,591. T.D. 5,625 ft.; moving in csg.

Kleberg County

Harry Clark's No. 1 Rodgers, Lot 5, Blk. 36. S.D. 750 ft.

Fidelity Oil Co.'s No. 1 Flato, 150 ft. S and E lines, Blk. 14, Sec. 40, K.T.&I. Sur. Location.

Parr & Ponder's No. 1 Sam Michalk et al, 330 ft. from N line and 775 ft. from S line, Blk. 37, Sec. 5; 5 miles SE Kingsville. T.D. 2,000 ft.; S.D.

LaSalle County

Rier & Witherspoon's No. 1 LaSalle Co., 1,320 ft. S and W lines, Sec. 19, Bland & Nelson Subd., O'Connor ranch. Rigging up and drlg. wtr. well.

Lee County

J. Spivey's No. 1 First National Bank, 300 ft. S and E lines, 846-ac. tract, Mack Sur. Location.

Live Oak County

E. H. Buchner's No. 1 McNeill, 300 ft. of SW cor. of 40-ac. tract, Blk. 8, McNeill Subd. Location.

Earl Calloway's No. 1 Lyne, 895 ft. of W line, 330 ft. of N line, SW¼ SW¼ of M. M. Lyne Sur. Drlg. 1,880 ft.

Conway & Beuscher's No. 1 Sanger, 50 ft. W line, 150 ft. SW line, 640-ac. lease, Sur. 224. Drlg. 1,930 ft.

L. O. Gleason's No. 1 Fitzpatrick, Sur. 52. Drlg. 50 ft.

McMullen County

Aransas Oil Co.'s No. 1 Reed, 330 ft. E line, 1,320 ft. S line, Spicer Sur. T.D. 1,650 ft.; S.D.

Darby Pet. Co.'s No. 1 Hagist, 660 ft., N and W lines, Sur. 125. Drlg. 1,074 ft.

C. O. Garney's No. 1 Hagist, 330 ft. N and W lines, SE¼, Sur. 6. Location.

L. O. Gleason's No. 1 Fitzpatrick, Blk. 36, Loving Sur. No. 52. T.D. 910 ft.; S.D. due to rains.

Marzo Oil Co.'s No. 1-B Hagist, 330 ft., S and E lines, Sec. 6. Set surface csg.; W.O.C.

Points et al's No. 1 Fahler, 432 ft. S line, 819 ft. E line of tract, Byrna pasture. T.D. 1,004 ft.; standing.

S. G. Teichman's No. 1 Henry, 330 ft. E line, 900 ft. N line, 8⅓, 115-ac. tract, Torres Sur. 26. Location.

West & Stevenson's No. 1 Fisher, 330 ft. N and W lines, O'Boyle Sur. Set csg. 503 ft.; W.O.C.

Medina County

F. Brown's No. 1 Brucks, 900 ft. W line, 660 ft. S line, Brucks tract, John Ward Sur. No. 18. Drlg. 3,150 ft.

Caroca Oil Co.'s No. 2 Roy Taylor, 600 ft. N line, 150 ft. E line, NE¼ W½ Sur. 135. S.D. 254 ft.

Joe Dupree's No. 1 Brucks, 404 ft. N line, 165 ft. E line, Castro Sur. No. 248. Drlg. 651 ft.

Ed Falvey's No. 1 McMenemy, 160 ft. S and W lines, Sur. 33. Rigged up; laying wtr. line.

Letro Oil Corp.'s No. 1 E. B. Forrest, 1,928 ft. from N line, 1,908 ft. from E line of 640-ac. tract, Blk. 69 Small show oil 391 ft.; underreaming 450 ft.

Nueces County

Bluff Pet. Co.'s No. 1 Bluntzer, 330 ft. SW and SE lines, NE 1,007-ac. tract, Sec. 6, Casa Blanco grant. Rigging up.

J. K. Coulton's No. 1 Baldwin, 330 ft. N line, 485 ft. E lines, 85.8-ac. tract, Blk. 20, Russell Farm Tracts. Spudded in.

La Jita Corp.'s No. 1 King, C SE¼ SW¼ Sec. 22. Drlg. plugs 6,015 ft.

Real County

H. J. Heartwell et al's No. 2 Mrs. M. S. Perry, 250 varas from NW line, 775 varas from SW line of A.B.&M. Sur. No. 176. T.D. 3,220 ft.; abandoned.

San Patricio County

Benedum & Trees' No. 1 Welder, 2,640 ft. N line, 660 ft. W line, Sec. 34. Spudded in.

Willis Storms' No. 1 Hobbs, 377 ft. S and 47 deg. 30 min. E from W corner of 50-ac. tract, N 42 deg., E 622 ft. to center of tract, Delgado Sur. S.D. 3,500 ft.

Starr County

Ash & Tackett's No. 1 Margo, 150 ft. S and E lines, Blk. 4, Share 3-B, Por. 70. No report.

J. H. Clopton's No. 2 Roos & Bennett, Share 1-A, Por. 82, J. of Cain. Drlg. 2,410 ft.

Evans & James' No. 1 Ferry, 150 ft. S and SE lines lease, Por. 72. Drlg. 805 ft.

McCurry & Yates' No. 1 S.C.C.C., 150 ft. W line, 510 ft. N line, Blk. 58, Porc. 89. Location.

McCurry & Yates' No. 2 S.C.C.C., 150 ft. E line, 510 ft. N line, Blk. 58, Porc. 89. Location.

Pedernal Oil Co.'s No. 2 Welsh, 630 ft. SE line, 930 ft. SW line, Lot 3, Welsh Subd., Pedernal grant. Location abd.

Pedernal Oil Co.'s No. 1 Hicks et al, 187 ft. from NW line, 318 ft. from NE line of Blk. 6, Pedernal Grant. T.D. 2,210 ft.; S.D.

Travis County

G. A. Artz & Co.'s No. 1 Rolff, 454 ft. N line, 207 ft. W of tract, Hancock Sur. T.D. 650 ft., shale; S.D.

C. B. Collard's No. 1 Blomberg, 150 ft. N line, 840 ft. E line, 99-ac. tract, McHenry Windburn Sur. S.D. 660 ft.

Webb County

Austin & Vernon's No. 1 Jeffries, 150 ft. NE line, 1,170 ft. SE line, Blk. 13, Sur. 1,453. Set surface csg.; S.D.; T.D. 40 ft.

E. T. Burton's No. 1 Billings, NE cor. of SW¼, Sur. 113. Location.

D. E. C. Oil Co.'s No. 1 Slater, C Blk. 50, Sur. 15, Arispe grant. No report.

French Oil Co.'s No. 1 Juan Guerra, 330 ft. N and W lines, Sur. 485. Rigging up.

O. W. Killam's No. 1 Ortiz, 200 ft. SE line, 3,350 ft. S.W. road, Porc. 17. Moving in material.

Magnolia Pet. Co.'s No. 1 Garcia-Arriba, 330 ft. S and E lines, Blk. 8, Albercas grant. Location.

J. E. Neal's No. 1 Laurel Bros., 1,320 ft. of S and E lines, Sur. 1,119. Rigged up; standing.

Nixon & Tabot's No. 1 Billings, 990 ft. E line, 975 ft. S line, Sur. 113. Location.

Magnolia Pet. Co.'s No. 1 Volpe Bros., 330 ft. N and W lines, Sur. 385. Coring 1,695 ft.

Arthur H. Wray's No. 1 Geo. Stuemke, Share 1, Brewster pasture, Galan grant. T.D. 1,450 ft.; good show gas and oil; to core further and take Schlumberger test.

Willacy County

Kingwood Oil Co.'s No. 1 Santa Rosa, Inc., 160 ft. from E line, 627 ft. from S line of Sec. 30, Blk. 16, Share 44, San Juan de Carricitas grant. S.D. 6,516 ft.

L. & S. Drlg. Co.'s No. 2 Armendiaz, near Rio Hondo, 7,798 ft. from E and W lines of Share 14. T.D. 5,300 ft.; S.D.

Williamson County

H. B. and Otto Glass' No. 1 Albert, 3 miles SE of Taylor. S.D. 214 ft.; shale.

H. L. Goff et al's No. 1 Albert Klotz, 1,700 ft. from N line, 150 ft. from E line of 100-ac. tract, W. Cartwright Sur. S.D. 1,250 ft.

Kothmann et al's No. 1 Albert Krueger, John Bevil Sur. No. 66, 1,400 ft. from NW line, 1,060 ft. from SW line, 118-ac. tract. S.D.; shale 550 ft.

Rue et al's No. 1 Chas. Bachmayer, 6 miles SE Taylor. T.D. 800 ft.; csg. parted; S.D.

J. M. Russell's No. 4 Nelson Est., 550 vrs. NE line, 150 vrs. SE line, J. L. Justice Sur. No. 2. T.D. 604 ft.; lime; S.D.

Zapata County

H. F. Crows' No. 1 B. Uribe, Blk. 5, Share 11, Partitions 4 and 5, San Ignacio Subd., Borrego grant. Derrick.

H. F. Crouis' No. 1 Ysagierre, 460 ft. S

and W lines, Share 17, Por. 15.
S.D. 415 ft.
J. J. O'Hern's No. 1 Raymond, 330 ft. NW line, 330 ft. NE line. Blk. 5, Share E, Por. 27.
Drlg. 517 ft.

S. W. TEXAS PROVEN

Week Ending October 12

Bateman—Bastrop County

Batts & Jarnson's No. 1 Mrs. Annete Harris, 576 vrs. (1,600 ft.) NW line, 630 vrs. (1,750 ft.) SW line, John Maxmillan Sur. 22.
T.D. 2,300 ft.; standing.

Carroll—Bastrop County

Fay Wilson et al's No. 1 Calahan, 7,700 ft. from NW line, 350 ft. from SW line, Mays Sur.
T.D. 2,512 ft.; dry and abd.

Caesar—Bee County

Caesar Oil Co.'s No. 6 R. E. Miller, N offset to Commodor's No. 4 Grissom.
Location.
C. Echols' No. 1 Hudman, 150 ft. N and W lines, 10-ac. tract.
Rigging up.
El Toro Oil Co.'s No. 1 J. J. Grissom, 150 ft. from N and W lines of 10-ac. tract, P. B. Early Sur.
Spudded; standing.
Sun Oil Co.'s No. 1 Barroum, 990 ft. N line, 330 ft. E line lease.
Tentative location.
Swiger et al's No. 4 Gardner, W offset to Vaughn producer.
Moving in material.

Dirks—Bee County

Illinois Pet. Co.'s No. 2 Rapp, 330 ft. N line, 66-ac. tract, 660 ft. W No. 1 Rapp, C. A. Dugat Sur.
Location.
Illinois Pet. Co.'s No. 3 Rapp, 330 ft. N line 66-ac. tract, 660 ft. W No. 2 Rapp, C. A. Dugat Sur.
Location.
Mills Bennett's No. 3 Rapp, 330 ft. NW and NE lines, 40-ac. tract, Dugat Sur.
Drlg. 4,476 ft.
Sun Oil Co.'s No. 3 Page, 660 ft. W No. 2, 330 ft. S line, 160-ac. lease. Young Sur.
Sand 3,836-50 ft.; comp. 16 bbls. per hr. on ¼-in. choke; T.D. 3,880 ft.
Texas Co.'s No. 8 Young, 1,612 ft. E line, Young Sur., 660 ft. E No. 7.
Sand 3,880-3,900 ft.; drlg. plugs.

Ray—Bee County

Dirks Bros.' No. 2 Ray, 660 ft. E of No. 3 and W road to Pettus in SW¼ of Sec. 7. 1,800 ft.; no report.
Magnolia Pet. Co.'s No. 3 Ray, 330 ft. W line, 990 ft. N line, 43-ac. tract, Blanchard Sur.
Drlg. shale and shells 1,811 ft.
Simms Oil Co.'s No. 4 Ray, 330 ft. N line, 990 ft. E line, 80-ac. tract. W. B. Blanchard Survey.
Comp. 16.2 bbls. per hr. on ¼-in. choke; T.P. 400 lbs.; C.P. 900 lbs.
Simms Oil Co.'s No. 1-B Campbell, 150 ft. S and E lines, Lot 19, Bucher Subd., W. B. Blanchard Sur.
Location.
Sun Oil Co.'s No. 3 Ray, 640 ft. W No. 2 Ray.
Rigged up.
Worth Oil Co.'s No. 3 Rutledge, 150 ft. out of SW cor., 300 ft. S of No. 2, 15-ac. tract, A. Hadley Sur.
Drlg. 3,250 ft.
R. J. Worthington's No. 1 Chestnut, 330 ft. NW cor. 40-ac. tract, B. O. Hadley Sur.
Spudded in; S.D.

Tuleta—Bee County

H. Y. Oil Co.'s No. 1 Ray, 1,440 ft. N line, 150 ft. W line, Blanchard Sur.
Testing 3,931-37 ft.
Heyser, Heard & Walton's No. 10 Young.
Drlg. 3,000 ft.
Heyser, Heard & Walton's No. 8 Young, 660 ft. NE No. 7.
Sand 3,856-63 ft.; comp.; no gauge.
Highland Oil Co.'s No. 4 Campbell, 40-ac tract, B.&B. Sur.
Spudded in.
Mills Bennett's No. 2 Roper, 330 ft. S and E lines, 20-ac. tract, E½ NE¼ SW¼ Sec. 9, Uranga grant.
T.D. 3,962 ft.; dry and abd.
Southwest Exploration Co.'s No. 1 Heyden & Bruckham, C of farm tract, 330 ft. from N and W lines of Sec. 20, Uranga grant.
No report.
Stanolind Oil & Gas Co.'s No. 3 Walton, 330 ft. W line, 715 ft. N line, 100-ac. tract, Sec. 21, Ragley Subvd., Urango Grant.
Comp. 148 bbls. on 3/16-in. choke; T.D. 3,960.5 ft.; T.P. 300 lbs.; C.P. 980 lbs.

Gas Ridge—Bexar County

American Gas Co.'s No. 5 Oliver, Rodriguez Sur.
T.D. 2,902 ft.; S.D.

Von Ormy—Bexar County

Richard Oil Co.'s No. 2 Wellbacher, 300 ft. N No. 1, 395 ft. E line tract, Sur. 54.
Fishing 500 ft.

Palo Blanco—Brooks County

United Prod. Co.'s No. 1 Kathleen Jones Hocker, 1,300 ft. SW of No. 2, 1,638 ft. from N line of Los Mogneijes de Palo Blanco grant.
Sand 3,030-37 ft.; T.D. 5,351 ft.; standing.

Dunlap—Caldwell County

Ballard & Witting et al's No. 1 Mrs. A C. Bridges et al, 650 ft. from NW line 450 ft. from NE line of Soloman Seale Sur.
T.D. 2,203 ft.; comp. on pump.

Driscoll—Duval County

Continental Oil Co.'s No. 6-A Sevier, 1,120 ft. E line, 120 ft. N line, Sec. 447, S.K.&K. Sur.
Sand 3,421-35 ft.; brought in as gas well making 50 bbls. oil; reconditioning.

Government Wells Pool—Duval County

Gilcrease Oil Co.'s No. 1 R. P. McLean, 330 ft. S and E lines, N½ NE¼ Sur. 62.
Testing 2,535 ft.
Highland Oil Co.'s No. 4-D W. Hahl. Sur. 64.
Comp. 100 bbls. jetting; S.D. 2,540-49 ft.
K.O.T. Oil Co.'s No. 5 Lundell, 330 ft. N and E lines, SE¼, NW¼, Sur. 48.
T.D. 2,450 ft.; dry and abd.
C. Kleiner's No. 1 Ruiz, 1,320 ft. N line. 1,650 ft. E line, 200-ac. tract, Sur. 125.
Tested 31 thribbles oil in 20 min.; sand 2,660-2,716 ft.; drlg. 2,845 ft.
Magnolia Pet. Co.'s No. 1 Harrell, 330 ft. N and W lines, 160-ac. tract, Sur. 64.
Coring 2,300 ft.
Magnolia Pet. Co.'s No. 2 D.C.R.C., 990 ft. S line, 330 ft. E line, Sur. 100.
Comp. on pump 45 bbls.; sand 1,959-73 ft.
Sun Oil Co.'s No. 1 Sutherland, 990 ft. S and W lines, Sec. 122.
Location.
Texas and Ohio Fuel Co.'s No. 1 D.C.R.C., 330 ft. N and W lines, Sur. 96.
Location.

Hoffman—Duval County

Reynosa Oil Co.'s No. 1 Meek, 1,650 ft. N line, 330 ft. E line, Sur. 114.
Set csg. 2,584 ft.; W.O.C.

Kohler—Duval County

California Co.'s No. 1 Kohler, 330 ft. N line, 2,597 ft. W line tract.
Set surface csg.; W.O.C.

Labbe—Duval County

Magnolia Pet. Co.'s No. 2 Labbee, 1,650 ft. W line, 990 ft. S line, Sur. 2.
S.D. for wtr.
Stanolind O. & G. Co.'s No. 1 Farmers Life Ins. Co., 3,987 ft. E line, 330 ft. N line, Sur. 416.
T.D. 2,948 ft.; swabbed to 2,450 ft.; dry.

Loma Novia—Duval County

Alpha Oil Co.'s No. 1 Hubbard, 330 ft. N and W lines SW¼ NW¼ Sur. 69.
Drlg. 2,475 ft.
Bridwell Oil Co.'s No. 5-B Hubbard, 990 ft. N and E lines, Sec. 75.
Drlg. 900 ft.
Bridwell's No. 4-B Hubbard, 990 ft. N line, 330 ft. E line, Sec. 75.
Comp. 100 bbls., jetting; sand 2,672-97 ft.
Buchanan & Blanco Oil Co.'s No. 1-B Ruiz, 185 ft. N line, 1,650 ft. E line, Sur. 73.
Location.
S. B. Cloys' No. 1 Hubbard, 330 ft. N and W lines, 440-ac. tract, Sur. 69.
Location.
R. DeLange's No. 2 B.C.C., 330 ft. S and E lines, 120-ac. tract, Sec. 76.
Comp. 16 bbls. per hr. on ½-in. choke; sand 2,691-2,712 ft.
R. DeLange's No. 2 Moody, 330 ft. N and W lines, 40-ac. tract, Sur. 76.
Spudded in.
Duval Oil Co.'s No. 2 Hahl, 330 ft. E line, 404.4 ft. S cor. Blk. 6, Sec. 78.
Location.
Duval Oil Co.'s No. 1 Hahl, 330 ft. S and W lines, Blk. 6, Sur. 78.
Comp. 25 bbls.; T.D. 2,611 ft.
Eastern States' No. 2 Hubbard, NW cor. SW¼ Sur. 71.
Location.
Frank Gravis, No. 2 Byland, 330 ft. S and E lines, Blk. 4, Sur. 78.
Location.
Frank Gravis' No. 1 Eckdahl, 199 ft. E line, 400 ft. S line, Blk. 7, Sur. 78.
Location.
Frank Gravis No. 2 Flodin, 330 ft. N and E lines, 40-ac. tract. Sur. 78.
Set csg. 2,549 ft.; drlg. plugs.
Claude Hamil's No. 2 Ruiz, 330 ft. from S and E lines of NW 100-ac. tract, Sur. 41 Cmtd. csg.: W.O.C
Hamill, Smith & Ogden's No. 3 Hubbard, 330 ft. SW cor. NW½ SW¼, Sur. 77.
Drlg. 810 ft.
Hamill, Smith & Ogden's No. 9 Hubbard. 330 ft. N & E lines, NW¼, NW¼, Sec. 77.
Sand 2,612-28 ft.; comp. 30 bbls. per hr.
Hamill, Smith & Ogden's No. 10 Hubbard. 330 ft. SE cr. NW¼ NW¼ Sur. 77
Comp. 32 bbls. per hr. on ½-in. choke; T.D. 2,627 ft.
Hamill, Smith & Ogden's No. 11 Hubbard. 330 ft. NE cor. SW¼ NW¼ Sur. 77.
Drlg. 1,715 ft.
Hamill, Smith & Ogden's No. 12 Hubbard. 330 ft. SE cor. SW¼ NW¼ Sur. 77.
Sand 2,610-26 ft.; comp. 35 bbls. per hr.
Hamill, Smith & Ogden's No. 13 Hubbard. 330 ft. N and E lines, NE¼, SE¼, Sec. 77.
Derrick.
Hamill, Smith & Ogden's No. 14 Hubbard, 330 ft. S and E lines, NE¼, SE¼, Sec. 77.
Spudded in.
Hamill, Smith & Ogden's No. 15 Hubbard. 330 ft. NE cor. SW¼ SW¼ Sur. 77.
Location.
Hamill, Smith & Ogden's No. 16 Hubbard. 330 ft. SE cor. SW¼ SW¼ Sur. 77.
Location.
Hamill, Smith & Ogden's No. 17 Hubbard. 330 ft. SW cor. SE¼ SW¼ Sur. 77.
Location.
Hamill, Smith & Ogden's No. 24 Hubbard, 330 ft. NW cor., NE¼, NW¼, Sur. 77.
Comp. 16 bbls. per hour on ¼-in. choke, sand 2,632-45 ft.
Hamill, Smith & Ogden's No. 25 Hubbard, 330 ft. SW cor., NE¼, NW¼, Sur. 77.
Drlg. 818 ft.
Hamill, Smith & Ogden's No. 32 Hubbard. 330 ft. SE cor. SE¼ SW¼ Sur. 77.
Location.
Highland Oil Co.'s No. 4 Hubbard, 1,650 ft. N lines, 330 ft. W line, 320-ac. tract, Sec. 72.
Comp. 75 bbls.; T.D. 2,706 ft.
Humble O. & R. Co.'s No. 7 Ruiz, 2,382 ft. W line, 330 ft. S line, Sur. 553.
Sand 2,783 ft.; set tubing and screen; swabbing.
Lipscomb & Daubert's No. 2 Hubbard, 330 ft. S and E lines, S½ NE¼ Sur. 75.
Set csg. 2,636 ft.; W.O.C.
Lipscomb and Daubert's No. 3 Hubbard, 330 ft. N line, 990 ft. E line, S½ NE¼ Sur. 75.
Rigging up.
Magnolia Pet. Co.'s No. 8 Hahl, 330 ft. N line, 4,305 ft. E line, 640-ac. tract, Sur. 67.
Location.
Magnolia Pet. Co.'s No. 7 Hahl, 330 ft. N line, 3,705 ft. E line, 640-ac. tract, Sur. 67.
Comp. 20 bbls. per hr.; T.D. 2,657 ft.
Russ Pet. Co.'s No. 1 Duke, 330 ft. N and W lines, 40-ac. tract, Sec. 64, J. Poitevent Sur.
Location.
Shell Pet. Corp.'s No. 7 Hubbard, 980 ft. W line, 1,650 ft. S line, 320-ac. tract, Sur. 77.
Comp.; swabbed 25 bbls. in 3 hrs.; T.D. 2,765 ft.
Stieren Oil Co.'s No. 8 Wright, 990 ft. S and E lines, 420-ac. tract, Sur. 72.
Drlg. 1,263 ft.
Stieren Oil Co.'s No. 6 Wright, 1,650 ft. W line, 330 ft. E line, Sur. 72.
Comp. 250 bbls.; sand 2,702-09 ft.
Sun Oil Co.'s No. 1 Hubbard, 330 ft. N and W lines, 174-ac. tract, Sur. 84.
Drlg. 1,860 ft.
Texas Co.'s No. 5 Hahl, 330 ft., S and E lines, Blk. 8, Sur. 78.
Comp.; no gauge; sand 2,596-2,615 ft.
Texas Co.'s No. 6 Hahl, 330 ft. N and E lines, Blk. 7, Sur. 78.
Location.
Texas Co.'s No. 7 Hahl, 330 ft. S and W lines, Blk. 8, Sur. 78.
Location.
The Texas Co.'s No. 2 Wendt, 660 ft. W No. 1 Wendt, 330 ft. N line, 458-ac. tract, Sur. 68.
Location.
Texas Co.'s No. 4 Wendt, 660 ft. N No. 2, 680 ft. E No. 1, 458-ac. tract, Guffy Sur.
Location.
Texas Co.'s No. 5 Wendt, 660 ft. W No. 3, 330 ft. N line, 458-ac. tract, Guffy Sur.
Location.
Texas Co.'s No. 6 Wendt, 660 ft. W No. 5, 330 ft. N line, 458-ac. tract, Guffy Sur.
Location.
Texas Co.'s No. 7 Wendt, 660 ft. E No. 2, 330 ft. N line, 458-ac. tract, Guffy Sur.
Location.
Texas Co.'s No. 3 Wendt, 330 ft. S and W line, Sur. 66.
Sand 2,606-19 ft.; comp. 30 bbls. per hr. on ¾-in. choke.
Texas Co.'s No. 9 Wendt, 330 ft. S line, 990 ft. W lines, Sur. 66.
Set surface csg. 88 ft.; W.O.C.

Piedras Pintas—Duval County

P. K. Kelly's No. 1 Tunsey, 200 ft. E line, 1,100 ft. N line, Sur. 8.
Sand 800-05 ft.; W.O.C.

Sarnosa—Duval County

Seaport Oil Co.'s No. 8-A D.C.R.C., 60 ft. E, 20 ft. S, No. 1-A, Sur. 574.
Comp. 27 bbls.; sand 2,348-2,405 ft.
Seaport Oil Co.'s No. 16-A D.C.R.C., Sur. 574.
Rigging up.

Seven Sisters—Duval County

Atlantic Oil Prod. Co.'s No. 3 J. F. Welder, 330 ft. W line, 1,650 ft. N line, 160-ac. tract. Sec. 38.
Comp. 28 bbls., ¼-in. choke; sand 2,495-2,515½ ft.; T.P. 450 lbs.; C.P. 360 lbs.
Atlantic Oil Prod. Co.'s No. 4 J. F. Welder, 330 ft. S and W lines, 160-ac. tract. Sec. 38.
Drlg. 1,410 ft.
Buchanan & Blanco Oil Co.'s No. 1 Welder, 330 ft. N and E lines, 82.1-ac. tract, Sec. 385.
Drlg. plugs; T.D. 2,477 ft.
Dulce Oil Co.'s No. 3 Serna, Sur. 384.
Coring 2,508 ft.
Humble O. & R. Co.'s No. 1 Badgley, 330 ft. S and E lines, Sur. 307.
Drlg. hard sand 448 ft.
Humble Oil & Refg. Co.'s No. 2 Smith, 1,580 ft. N line, 330 ft. E line, 531.7-ac. tract, Sec. 382. B.S.&F. Sur.
Comp. 33⅓ bbls. per hr., ¾-in. choke; sand 2,468-78 ft.
Mid-Continent Pet. Corp.'s No. 1 Serna Jr., 330 ft. N of W lines of S½ of N½ Sur. 384.
Comp. 25 bbls. per hr.; sand 2,471-82 ft.
Santa Clara Oil Co.'s No. 15 Wood-Welder, 330 ft. S line, 1,650 ft. E line Tract, Sur. 385.
Coring sand 2,460 ft.
Santa Clara Oil Co.'s No. 14 Wood-Welder, 1,650 ft. N line, 660 ft. E line, 160-ac. tract, Sec. 385, J. Poitevent Sur.
Comp.; no gauge; sand 2,486-94 ft.

Hords Creek—Goliad County

Brown & Wheeler's No. 1-C Kaufman, 330 ft. S and E lines, NW¼, Trevino Sur.
Running csg. 4,566 ft.
Sun Oil Co.'s No. 1 Kaufman, 990 ft. SE line, 330 ft. SW line lease, Trevino Sur.
Rigging up.

North Pettus—Goliad County

Dirks Bros.' No. 1 Ray, 330 ft. N and E lines, 112-ac. tract, B.&B. Sur.
Drlg. 1,650 ft.
Jane Oil Co.'s No. 5 Smith, 990 ft. SW line, 330 ft. SE line, B.&B. Sur. No. 25.
Derrick.

Southwest Darst Creek—Guadalupe

Kniffin & Gallagher's No. 1 Lay, 620 ft. W line, 154 ft. S line, 20-ac. tract, Davis Sur.
Drlg. 2,150 ft.

Mercedes—Hidalgo County

Union Sulphur Co.'s No. 5 American Rio Grande L. & I. Co., 330 ft. N line, 350 ft. W line, Tract 2,082.
Prep. third preporation; tested at 7,514 and 7,494 ft.; 54 gr. oil; no pressure; swabbing.
Union Sulphur Co.'s No. 4 A.R.G.L.&I.C., 400 ft. N and W lines, Lot 1, Blk. 99, 1½ miles SW discovery well.
T.D. 7,790 ft.; dry and abd.
Union Sulphur Co.'s No. 6 American Rio Grande L. & I. Co., Tract 2,358, Blk. 49.
Drlg. 1,500 ft.

Samfordyce—Hidalgo County

J. H. Anderson's No. 1 Guerra, 233 ft. N line, 285 ft. W line, Tract 254, Por. 39.
Location.
Cortez Oil Co.'s No. 2 Guerra, Tract 12, Porc. 41.
Rigging up.
Cortez Oil Co.'s No. 2-C Smith, 330 ft. from N line, 690 ft. from W line of NE 40 acres of Tract B-3, Porcion 41.
Location.
Cortez Oil Co.'s No. 3-C Smith, 330 ft. from N line, 1,150 ft. from W line of NE 40 acres of Tract B-3, Porcion 41.
Location.
Ralph E. Fair, Inc.'s (Kingwood) No. 7 Guerra, 450 ft. S line, 600 ft. E line, Tract 254, Por. 39.
Comp. 100 bbls.; sand 2,787-97 ft.
Ralph E. Fair, Inc.'s (Kingwood) No. 4 Guerra, 165 ft. S line, 1,150 ft. E line. Share 12, Por. 41.
Location.
Ralph E. Fair, Inc.'s (Kingwood) No. 1 Seabury, 150 ft. NE cor. 10 acres, Tract 256, Por. 38.
Drlg. 1,210 ft.
Ralph E. Fair, Inc.'s (Kingwood) No. 4 J. Lawrence, 300 ft. from N line, 150 ft. from W line of W 40-ac. tract 274, Por. 39.
No report.
Harrison, Davis & Bishop's No. 1 Guerra, 230 ft. S line, 616 ft. W line, S 40-ac., Tract 12, Por. 41.
M.I.M.
Harrison-Davis-Bishop's No. 5 Guerra, 230 ft. S line, 616 ft. W line, 40-ac. tract, Tract 12. Por. 41.
Drlg. 2,263 ft.
Harrison-Davis-Bishop's No. 6 Guerra, 230 ft. N and E lines, 40-ac. tract, Tract 12, Por. 41.
Location.
Harrison-Davis-Bishop's No. 7 Guerra, 230 ft. N line, 623 ft. E line, 40-ac. tract, Tract 12, Por. 41.
Location.
Harrison-Davis-Bishop's No. 8 Guerra, 230 ft. N line, 1,083 ft. E line, 40-ac. tract, Tract 12, Por. 41.
Location.
Harrison-Davis-Bishop's No. 9 Guerra, 230 ft. N and W lines, 40-ac. tract, Tract 12, Por. 41.
Location.
Harrison, D. D., Oil Co.'s No. 4 Lula George, 330 ft. N line, 590 ft. W line, S½ Tract 13, Por. 41.
Comp. 40 bbls.; T.D. 2,768 ft.
W. F. Lacey's No. 1 Seabury, 330 ft. N and W lines, NE 10-ac., SE 51-ac., Tract 256, Por. 38.
Spudding in.
W. F. Lacey's No. 2 Seabury, 250 ft. N and E lines, NE 10-ac., SE 51-ac., Tract 256, Por. 38.
Location.
W. F. Lacey's No. 1 Lula George, 75 ft. S and W lines, 5-ac. tract, Tract 13, Por. 41.
Location.
W. F. Lacey's No. 2 Lula George, 75 ft. S and W lines, 10-ac. tract, Tract 13, Por. 41.
Location.
W. F. Lacey's No. 3 Lula George, 75 ft. S line, 550 ft. W line, 10-ac. tract, Tract 13, Por. 41.
Location.
Mundy & Sons' No. 1 Guerra, 853 ft. W line, 1,275 ft. N line, Tract 12, Por. 41.
Rocking to bring in; sand 2,937-51 ft.; Samfordyce sand 2,758-68 ft.
E. Powell's No. 2 Lula George, 330 ft. S and E lines, 20.11-ac. tract, Tract 13, Por. 41.
Rigging up.
Rogers O. & G. Co.'s No. 2-B Guerra, 150 ft. S and E lines. 12.5-ac. tract, Por. 39.
Comp. for allowable; top gas sand 2,-733 ft.; sat. shale sec. 2,770-77 ft.; perforated 2,773½-77 ft.

North Pettus—Karnes County

Magnolia Pet. Co.'s No. 10 Porter, 330 ft. SW line of lease, 660 ft. NW No. 1.
Location.

Gas Oil Co.'s No. 1 Belknap, 1,609 ft. SE cor., 150 ft. E line, Chas. Haynes Sur. Drlg. 2,210 ft.

Kingsville—Kleberg County

Fidelity & Culbertson Exploration Co.'s No. 2 Henry, Lot 2, Blk. 49. Location.

Fidelity & Culbertson Exploration Co.'s No. 1 Kivlin, Blk. 39, Lot 4, K.T.&I. Sur. Location.

Fort Merrill—Live Oak County

Slick-Urschel Oil Co.'s No. 1 Watson & Shipp, 330 ft. NE line, 990 ft. SE line lease, offset Mills Bennett's No. 1 discovery well. Rigged up.

Lucas—Live Oak County

Houston Oil Co.'s No. 2 Frederick, 330 ft. SW and SE lines, Sec. 19, Jane Curry Sur. No. 16. Spudded in; S.D.

McNeill—Live Oak County

Benco Oil Corp.'s No. 1 E. Mahoney, 155 ft. from NW line of J. H. Harvey tract, 3,199 ft. SW of highway in Mark Killelly Sur. S.D. 78 ft.

Lion Oil Ref. Co.'s No. 1 Dobie, 990 ft. N and W lines, 410-ac. tract, G.H.&H. Sur. Drlg. 4,505 ft.

J. O. Whittington's No. 4 Little, 990 ft. S and E lines, Shipp Sur. Location.

J. O. Whittington's No. 3 Little, 1,980 ft. SW line, 1,650 ft. SE line, 503-ac. tract, M. M. Shipp Sur. Coring 4,958 ft.

Jacob Pool—McMullen County

Lightfoot & Wilkerson's No. 6 Lark, Blk. 113, Scrugham Sur. Comp. est. 72 bbls.; sand 1,042-50 ft.

Loma Oil Co.'s No. 41-A Jacob, 660 ft. N No. 40-A. Location.

Hondo—Medina County

Callahan & Robert's No. 1 Ray Taylor, 1,450 ft. NS line, 220 ft. EW line, Sur. No. 135. No report.

Baldwin—Nueces County

Gilcrease's No. 1 Sanders, 330 ft. N and E lines, 106-ac. tract, B.S.&F. Sur. 165. Tested 3,982-87 ft.; small amount of oil and mud.

Magnolia Pet. Co.'s No. 2 Baldwin, 330 ft. W and S lines 1,005-ac. tract, B.S.&F. Sur. No. 165. Drlg. hard sticky shale 6,153 ft.

Saxet—Nueces County

Houston Oil Co.'s No. 2 Isensee, 330 ft. S and E lines, 40-ac. tract. Location.

Houston Oil Co.'s No. 5 Macgregor, 330 ft. SW cor., 135-ac. tract, 660 ft. NW No. 4, Sur. 311. Set csg. 1,004 ft.; W.O.C.

Houston Oil Co.'s No. 6 Rand Morgan, 330 ft. N line, 660 ft. W No. 5. Comp.; no gauge; T.D. 4,876 ft.; making oil and wtr.

Magnolia Pet. Co.'s No. 2 Sanders, 330 ft. SW cor. 110-ac. tract, Sec. 165, B.S.&F. Sur. Derrick.

Republic Natural Gas Co.'s No. 10 Dunn, 1,010 ft. SE No. 9. Coring 4,822 ft.

Richardson & Thomas' No. 1 Page Bros., 330 ft. N and E lines tract, Share 3, Sec. 416. Drlg. 5,400 ft.

Shell Pet. Corp.'s No. 1 Plato, 330 ft. W line, 500 ft. Tex.-Mex. R.R., 40-ac. tract No. 1, Dunn Sur. Reaming; T.D. 6,596 ft.

Shell Pet. Corp.'s No. 2 Isensee, 330 ft. S and W lines of 136-ac. tract, C. Land Sur. Rigging up.

Smith et al's No. 1 Walton, NW cor. 92.11-ac. tract, Enrique Villareal Sur. Reconditioning and testing.

Southern Minerals' No. 2-B Walton, 330 ft. E line, 270 ft. S line, 5-ac. lease of 16-ac. tract, 3 miles SE Viola townsite. Run tubing 4,863 ft.; swabbing.

Violet Oil Co.'s No. 2 Gallagher, 990 ft. W line, 330 ft. S line, 153-ac. tract, Sur. 25. Comp. 15 bbls.; rigging up to pump.

Warner-Quinlan's No. 2 Isensee, 330 ft. S and E lines, Blk. 1. Drlg. 4,175 ft.

Plymouth—San Patricio County

Conroe Drlg. C.'s No. 1 Welder, 330 ft. N and E lines, Sec. 47. Drlg. shale 4,930 ft.

Hoop Oil Corp.'s No. 3-F Welder, 466 ft. S line, 1,399 ft. E line, Sec. 46. Drlg. shale and lime 1,450 ft.

Hoop Oil Corp.'s No. 16-E Welder, 2,265 ft. N line, 1,399 ft. E line, N 400-ac. tract, Sec. 46, R. Montgomery Sur. Rigged up.

Hoop Oil Corp.'s No. 2-F Welder, 466 ft. S line, 466 ft., Chiltipin Creek, 200-ac. tract, Sec. 46. Comp. est. 200 bbls.; T.D. 5,622 ft.

Hoop Oil Corp.'s No. 5-F Welder, 833 ft. N line, 1,399 ft. E line, Tract F, Sec. 46, Sand 5,635-46 ft., 8 min.; D.S.T.; 90 ft. oil; set csg.; W.O.C.

Magnolia Pet. Co.'s No. 3 Corpus Christi Bank, 660 ft. S No. 2. Rigging up.

Magnolia Pet. Co.'s No. 2 Corpus Christi, 660 ft. S of No. 1, H. H. Hunter Sur. Comp. 189 bbls., ¼-in. choke; T.P. 750 lbs.; C.P. 700 lbs.

Plymouth Oil Co.'s No. 19-C Welder, 2,307 ft. W line, 3,116½ ft. N line, Sec. 48. Location.

Plymouth Oil Co.'s No. 20-C Welder, 2,332 ft. W line, 1,965 ft. N line, Sec. 48. Location.

Plymouth Oil Co.'s No. 14-C Welder, 466 ft. W line, 300 ft. from Chiltipin Creek and 1,455 ft. SE No. 8-C. Comp. 200 bbls.; T.P. 1,050 lbs.; C.P. 1,000 lbs.; T.D. 5,636 ft.

Plymouth Oil Co.'s No. 15-C Welder, 2,324 ft. N line, 1,400 ft. W line, Sec. 48. Set csg. 5,624 ft.; W.O.C.

Plymouth Oil Co.'s No. 16-C Welder, 1,399 ft. W line, 1,399 ft. N line, Sec. 48. Set csg. 5,634 ft.; W.O.C.

Plymouth Oil Co.'s No. 17-C Welder, 2,000 ft. E line, 189 ft. S line, Sec. 50. Set csg. 5,518 ft.; W.O.C.

Plymouth Oil Co.'s No. 18-C Welder, 2,501 ft. N line, 1,431 ft. W line, Sec. 48. Rigging up.

Sun Oil Co.'s No. 1 Hunt, 466 ft. N and W lines lease, Sec. 34. Drlg. 4,812 ft.

Barbacoas—Starr County

T. K. Irwin et al's No. 1 S.C.C.C., 150 ft. S and W lines, Blk. 58, Por. 89. Cored oil sand 2,312-20 ft.

Rio Grande—Starr County

Sioux & Heard's No. 4 Goodrich, Blk. 5, Tract 5, Porc. 81. Spudding in.

W. W. Zimmerman's No. 3 D.&C., 522 ft. W line, 450 ft. S line, Blk. 1, Tract A-77, Por. 81. Spudding in.

Samfordyce—Starr County

Phillips & Barnsdall's No. 2 Yturria Sand & S. Co., 1,420 ft. S line, 330 ft. W line, 110-ac. tract, Porc. 100. Spudding in.

Porter & Pickins' No. 2 Garcia Land & Cattle Co., 330 ft. N and E lines, 60-ac. tract, NW cor. Blk. 4, Por. 100. Location.

Porter & Pickens' No. 3 Garcia Land & Cattle Co., 330 ft. N and W lines, 60-ac. tract, NW cor. Blk. 4, Por. 100. Location.

Porter & Pickens' No. 4 Garcia Land & Cattle Co., 330 ft. W line, 914 ft. S line, 60-ac. tract, Blk. 5, Por. 100. Location.

H. J. Porter's No. 1 Garcia Land & Cattle Co., 914 ft. S line, 330 ft. E line, 60-ac. tract, W½ Por. 100. Comp. 72 bbls.; sand 2,309-15 ft.

Skelly Oil Co.'s No. 7 Seabury, 219 ft. S line, 331 ft. W line, NW 20-ac. tract, Tract 256, Por. 38. Location.

Skelly Oil Co.'s No. 8 Seabury, 219 ft. N line, 198 ft. W line, 12-ac. tract, Tract 256, Por. 38. Location.

Skelly Oil Co.'s No. 9 Seabury, 330 ft. N line, 330 ft. W line, 24-ac. tract, Tract 256, Por. 38. Location.

Skelly Oil Co.'s No. 10 Seabury, 440 ft. N line, 220 ft. E line, 24-ac. tract, Tract 256, Por. 38. Location.

Skelly Oil Co.'s No. 4 Seabury, 219 ft. N line, 248 ft. E line, E 15-ac., NW 30-ac., S 263.8-ac., Tract 256, Por. 38, J. of Reynosa. Comp. 300 bbls.; T.D. 2,815 ft.

Skelly Oil Co.'s No. 6 Seabury, 219 ft. S line, 248 ft. E line, E 15-ac., NW 30-ac., S 263.8-ac., Tract 256, Por. 38, J. of Reynosa. Location.

Bruni—Webb County

O. W. Killam's No. 41 Bruni, Blk. 30, Sur. 14. Rigging up.

Lopez—Webb County

C. F. Lewis' No. 1 Lopez, 330 ft. N line, 990 ft. W line, Sur. 110. Drlg. 753 ft.

Mills Bennett's No. 1 M. Lopez, 330 ft. N and E lines, 100-ac. tract, Sec. 73, Share 6-B, C.C.S.D.&R.G.N.G. R.R. Co. Sur. Comp. 200 bbls.; sand 2,202-06 ft.

Mills Bennett's No. 6 J. Lopez, 1,993 ft. S line, 990 ft. W line, Sur. 72. Coring 2,200 ft.

West Cole Pool—Webb County

James P. Goslin's No. 2 Benavides, 347 ft. NW line, 313 ft. SW line, Blk. 220. Drlg. 1,370 ft.

Magnolia Pet. Co.'s No. 1 Seacord-Benavides, 330 ft. N and NW lines, Blk. 8, Subd. Sur. 174. Set surface csg.

R. E. Miesner's No. 1 Garza, 320 ft. E line, 200 ft. S line, NW¼ SE¼ Sur. 457. Coring 1,952 ft.

Texas Co.'s No. 3 Benavides, 410 ft. SW line, 296 ft. NW line, Blk. 325. Drlg. 2,659 ft.

Laurel—Webb County

South Texas Oil Co.'s No. 2 Laurel, Sur. 269. Rigging up.

O'Hern—Webb County

Jack & Jim Oil Co.'s No. 1 S. Benavides, cen. Blk 195, Myrtle Hale Subvd., M. Arispe Grant. Comp. 200 bbls.; sand 2,754-60 ft.

Magnolia Pet. Co.'s No. 2 J. Benavides, cen. Blk. 292. Rigged up.

Magnolia Pet. Co.'s No. 4-X Benavides, 347 ft. NW line, 313 ft. SW line, Blk. 156. Location.

Magnolia Pet. Co.'s No. 14 Brennan-Benavides, C Blk. 166. Comp. 12 bbls. per hr.; T.D. 2,734 ft.

Magnolia Petroleum Co.'s No. 15 Brennan-Benavides, cen. Blk. 153. Comp. 40 bbls.

Magnolia Pet. Co.'s No. 16 Brennan-Benavides, cen. Blk. 286. Drlg. 900 ft.

Magnolia Pet. Co.'s No. 9 G. Benavides, C Blk. 137. Comp. 200 bbls.; sand 2,751-81 ft.

James P. Nash's No. 5 S. Benavides, 347 ft. NW line, 313 ft. SW line, Blk. 159. Set surface csg.; W.O.C.

J. J. O'Hern's No. 2 Brennan-Benavides, Blk. 189. Location.

Texas Co.'s No. 6 Brennan-Benavides, C Blk. 278, Hale Subd., Arispe grant. Location.

Noack—Williamson County

Coffield & Lanning's No. 3 Heap, 200 ft. from N line, 225 ft. from W line of tract in White Sur. Location.

Byersville—Williamson County

Taylor Ref. Co.'s No. 9-A Sladek, H. White Sur., 150 ft. from NE line, 1,200 ft. SE line (creek). T.D. 700 ft.; shale; S.D.

Escobas—Zapata County

Clover Oil & Gas Co. and J. P. Nash's No. 1 Haynes, 500 ft. SW line, 150 ft. NW line, Blk. 7. Rigging up.

Reliable Oil Co.'s No. 5 Haynes, 100 ft. SE line, 800 ft. SW line, Blk. 4, C. & V. Grant. Coring sand 825 ft.

S.R.C. Oil Corp.'s No. A-15 Trevino, 200 ft. W line, 520 ft. S line, Blk. 8, Sur. 66. S.D. 2,580 ft.

Texas Co.'s No. 76 Whitehead, 24,527 ft. SW line, 6,309 ft. SE line, Cerrito Blanco grant. Derrick.

Texas Co.'s No. 51 Whitehead, 23,210 ft. SW line, 4,771 ft. SE line, Cerrito Blanco grant. Comp. 30 bbls.; sand 1,186-1,209 ft.

Lopena—Zapata County

Humble O. & R. Co.'s No. 1 Eulalia Dominguez, 12,785 ft. SW along SE line, Por. 31, from E cor. of same, 1,320 ft. NW line. Drlg. sandy shale 5,804 ft.

E. C. TEXAS WILDCATS

Week Ending October 12

Cayuga Area—Anderson County

Tide Water Oil Co. et al's No. 21-A Willa 4,079 ft. N and 2,333 ft. W of lease, S. Edmondson Sur. (Trinity test). T.D. 9,085 ft.; P.B. to 8,746 ft. to comp. for a gasser.

Long Lake Area—Anderson County

Tide Water-Seaboard's No. 3 Shaw & Cern, S. Sanchez Sur., 3,266 ft. E line and 2,332 ft. S line of 1,216-ac. tract, or 915 ft. N and 932 ft. W of No. 1 Shaw & Cern. Pecan 3,555-3,618 ft.; drlg. 3,775 ft.

Angelina County

Burnham et al's No. 1 Norton Properties, 700 ft. NW cor. and 600 ft. from E of W. M. Johnson Sur., 3 miles SW of Zavala in SE part of county. S.D. 612 ft.

S. W. Henderson, Jr.'s No. 1 B. A. Weeks, 990 ft. E and 375 ft. N, H. Gayman Sur., 2 miles W of Lee-Tex' No. 1 Guissier. Coring 2,243 ft.

Pioneer Exploration Co.'s No. 1 Mrs. Willroy, 700 ft. N line of D. C. Welsh Sur., and center of E and W lines of Sur., ½ mile NW of Huntington. Elev. 312 ft.; S.D. 1,429 ft.; making about 12 bbls. per day; gr. 25 deg.

Bowie County

Tex-Ark. Oil Co.'s No. 1 Hamilton Estate, 600 ft. E and 350 ft. N lines, J. Milan Sur., 4 miles S of Red River. S.D. 1,121 ft.

Woodley & Bentley's No. 1 Lumpkin, 330 ft. out of NE cor. of 245-ac. tract, J. McDermot Sur., 1 mile SW of Dalby Springs. S.D. 130 ft.

Camp County

E. R. Smith et al's No. 1 J. M. Jordan, 3,000 ft. from S and 1,100 ft. from E. B. Allen Sur., 1 mile S of Newsome. Location.

Cherokee County

Wilson Stubbs Oil Co.'s No. 1 Rowborta, 450 ft. from S line, 150 ft. from W line of 100-ac. tract, 2 miles SW of Jacksonville, J. D. Wolfin Sur. S.D. 1,585 ft.

Collin County

Port Bolivar O. & R. Co.'s No. 1-A Dunning, 24 ft. W of No. 1, Wm. Creager Sur., 2 miles SE of Van Alystin. Elev. 722 ft.; S.D. 1,732 ft.

Port Bolivar O. & R. Co.'s No. 1 J. Shirley, 330 ft. N and W of 310-ac. tract, J. Sorrell Sur., 4 miles SE of Anna. Elev. 684 ft.; S.D. 1,965 ft.

Ellis County

Beasley O. & G. Co.'s Inc.'s No. 1 R. Roller, 1,000 ft. from NW and 1,500 ft. from SW line of Sur. S.D. 150 ft.

Falls County

Bell & Hays' No. 1 Taylor, 155 ft. from N and 465 ft. from E of 20-ac. tract, J. A. Manchaca Sur., Chilton area. S.D. 1,046 ft.; filled up 65 ft. oil and wtr. in 12 hrs.; to shoot.

Fannin County

J. A. Hoover's No. 1 McFall, 750 ft. from SW cor. of Tract 5, Garrison Sur., 4 miles SE of Wortham. Derrick, 7,000 ft. test.

Warner Moore et al's No. 2 Hancock Est., 1,200 ft. N and 500 ft. E of L. M. Baldock Sur., 1 mile E of Trenton. Location.

Warner Moore et al's No. 1 Hancock, 400 ft. from W and 150 ft. N lines, Sec. 16, L. M. Baldock Sur., ½ mile S of Trenton. Top sand 645 ft.; S.D. 657 ft.

R. Franklin Smith-Allen-Argo's No. 1, center of 16½-ac. tract in J. G. Swisher Sur. Drlg. 1,110 ft.

Freestone County

J. E. Milburn's No. 1 S. E. McShan, 4,000 ft. NW and 5,000 ft. NE of tract, 3 miles SE of Donie G. Diaz Sur. S.D. 270 ft.

Grayson County

Olson Drlg. Co.'s No. 1 Southwestern Life Ins. Co., center of 160-ac. tract and J. C. Jamison Sur., 6 miles NW of Denison. Elev. 767 ft.; T.D. 2,298 ft.; P.B. to 1,600 ft.; S.D.

Port Bolivar O. & R. Co.'s No. 1 C. Taylor, 330 ft. S and W of 1,543-ac. tract, Fitzhugh Sur., 2¼ miles SE of Gunter. Rigged up.

Henderson County

Kirby Pet. Co.'s No. 1 C. L. Litchfield, 600 ft. N and 350 ft. W, I. Clendennon Sur. S.D. 4,122 ft.; showing salt wtr.

H. M. Wilson's No. 1 fee, 970 varas S of NE cor. of 943-ac. tract, 5 miles N of Malakoff. Derrick.

Hunt County

J. F. Morrissey & Co., Inc.'s No. 1 Fry, 542 ft. from N and 200 ft. from E of 146-ac. tract, 7 miles N of Commerce, C. Davis Sur. T.D. 4,407 ft.; fishing.

Kaufman County

Germany et al's No. 1 Clark, 951 ft. N and 1,000 ft. W of tract, S. Eden Sur. T.D. 1,780 ft.

Murry & Emerson's No. 1 G. W. Martin, 1,660 ft. from W and 20 ft. from N of 140-ac. tract, from W. L. C. Butler Sur., 2 miles NE of Kemp. S.D. 2,050 ft.

Lamar County

L. W. Dennis' No. 1 W. C. Clark, 800 ft. from E and 1,800 ft. from N line of G. H. Hall Sur., 3 miles NE of Reno. Location.

L. W. Dennis, trustee's No. 1 Mrs. E. Lawrence, 300 ft. from N and 1,160 ft. from W of T. B. Roundtree Sur., 2 miles NE of Blossom. Derrick.

Gulf Pet. Co.'s No. 1 A. L. Darnell, 1,400 varas from S and 1,080 varas from W line of H. L. Williams Sur., 4 miles NE of Paris. Coring 2,254 ft.

North Texas Synd., Eric T. Bradley, tr.'s No. 1 Wright, Alfred Moore Sur., 1,600 ft. S and 4,200 ft. from E line of Sur. Drlg. 2,021 ft.

Leon County

Tide Water-Seaboard's No. 1 A. W. Johnson, located in S. Sanchez No. 7, 1,500 ft. E and 1,200 ft. N of most westerly SW cor. 425-ac. lease. T.D. 5,265 ft.; testing.

Limestone County

D. Crawford's No. 1 Mary Ward, 150 ft. out of NE cor. 25-ac. tract, P. Varella Sur. Rig.

McLennan County

T. Cunningham's No. 1 M. G. McKee, 940 ft. from S and 2,640 ft. W of 640-ac. tract, M. Snell Sur., near Bruceville. Derrick.

Riley & Barrow's No. 1 Hortsman, V. C. Walters Sur., 500 ft. from most northerly N line, 500 ft. from most westerly E line, 500-ac. tract, 1½ miles S McGregor. S.D. 475 ft.

Nacogdoches County

Rosser Bros. & Jackson's No. 1 Matthy, 330 ft. out of NE cor. 60-ac. tract, Pedro J. Esparza Sur., 6 miles S of Nacogdoches. S.D. 565 ft.

Navarro County

McCullough et al's No. 1 C. Berry, 330 ft. from SE cor. of 35-ac. tract, 1 mile W of Dawson, William Moss Sur. S.D. 1,500 ft.

E. M. Thomason's No. 1 T. P. Shivers, 1,500 ft. from W. and 600 ft. N. of 69-

ac. tract, W. R. Bowen Sur., 2 miles S. of Corsicana.
S.D. 1,287 ft.

Rains County

Allen & McClung's No. 1 Giles, T. Cunningham Sur., Abst. 148, 330 ft. from W line and 200 ft. from N line of 105-ac. Giles tract, 5 mi. SW of Emory.
Derrick.

Allen & McClung's No. 1 Ida Bullard, N. Brantely Sur., 1,300 ft. from W line and 300 ft. from N line of 25-ac. tract, 1 mi. SW of Emory.
Derrick.

Allen & McClung & Collard's No. 1 S. P. Cain, 1,350 ft. N and 1,550 ft. W line of J. Harges Sur., 1 mile NW of Emory.
Location.

Red River County

Abercrombie & Harrison's No. 1 Southern Pine Lumber Co. (Wright), 500 ft. S and center of E and W lines of 62.5-ac. tract in S. Pew Sur., 6 miles N of Bagswell.
Dry and abd. 895 ft.

Don F. Cleary's No. 1 C. S. Mowery, 150 ft. from S and 3,200 ft. W of most easterly E line of J. Bowerman Sur., 10 miles N of Clarksville.
Derrick.

Joe Dinger et al's No. 2 Morris, John Guest Sur., approx. 175 ft. NW of No. 1 Morris, 1 mile S Detroit.
Rigged up.

R. H. Chew et al's No. 1 J. F. Brooks, 990 ft. N and 600 ft. of W line of 330-ac. tract, B. Gooch Sur., ½ mile S of Bagswell.
Derrick.

Joiner's No. 1 D. Rust, C. C. Wilborn Sur., 324 ft. N and 354 ft. W of most southerly SE cor. of Sur., just south of Avery.
Derrick.

Rockwall County

Dodd et al's No. 1 M. F. Lofland, 2,250 ft. from N and 3,350 ft. from E line of 392-ac. tract, W. H. Beird Sur., 2½ miles SE of Rockwall.
Derrick.

Rusk County

Harrison & Abercrombie's No. 1 C. A. Rose, 400 ft. from S and 300 ft. from E, Mary Smith Sur., 3 miles N of Clarksville.
Derrick.

J. W. Shipman et al's No. 1 Citizens Natl. Bank, NE cor. of 135-ac. tract, J. J. T'Barbo Sur., 4 miles NE of Henderson
Elev. 432 ft.; skidding rig 400 ft. E; rigged up.

Titus County

S. Rotondi's No. 1 Lillianstun, 1,200 ft. E from NW cor. of J. Bodt Sur. and 330 ft. N, but in W. H. Crawford Sur., 5 miles NE of Talco.
Elev. 301 ft.; derrick.

Van Zandt County

J. H. Gilliam et al's No. 1 E. S. Martin, 185 ft. most southerly SE line, and 208 ft. from most easterly SW line of tract, James Hamilton Sur., 3 miles NE of Wills Point.
Location.

Pioneer Exploration Co.'s No. 1 B. Spruce, 330 ft. out of SE cor. of 50-ac. tract, in J. Denman Sur., 8 miles S of Canton.
Drlg. plug. 102 ft.

WEST TEXAS WILDCATS

Week Ending October 12

Andrews County

Humble Oil & Ref. Co.'s No. 4 Means, 1,-962 ft. from N and 660 ft. from E, Sec. 12, Blk. A-35.
T.D. 4,555 ft.; P.B. to 4,542 ft.; making 25 bbls. fluid per day; cleaning out.

L. G. Stogner et al's No. 1 Mrs. C. George, 660 ft. from S and E, Sec. 25, Blk. A-32, P.S.L. Sur.
Drlg. 4,738 ft.

Sun Oil Co.'s No. 1 J. S. Means, 1,980 ft. from S and 660 ft. from E lines of Sec. 8, Blk. A-36, P.S.L. Sur.
T.D. 4,555 ft.; shot; I.P. 827 bbls.

Wahlenmaier et al's No. 1 Cox Estate, 1,320 ft. from N and W of Sec. 8, Blk. A-33.
Top Brown lime 4,125 ft.; drlg. 4,165 ft.

Brewster County

P. C. Dodson's No. 1 Texas American Syndicate, 660 ft. from N and E, Sec. 66, Blk. 10, G.H.&S.A. Sur.
T.D. 1,715 ft.; lost drill pipe in hole.

Joiner et al's No. 1 McIntyre, 353 ft. from S, 2,390 ft. from E of Sec. 21, Blk. 353, W. M. Mitchell Sur.
S.D. 2,150 ft.

King & Franklin's No. 1 Gage Est., C Sec. 188, Blk. 22, G.H.&S.A. Sur.
Elev. 4,244 ft.; C.O. 1,475 ft.

G. H. Storey's No. 1 Wilson, 1,980 ft. from N and E lines of Sec. 3, Blk. 212, T.&St.L. Sur.
Elev. 3,609 ft.; S.D. 1,875 ft.

Cochran County

Humble Oil & Ref. Co.'s No. 1 C. D Slaughter, 5,600 ft. from S and 4,000 ft. from E lines of League 135, Armstrong County School Lands
Drlg. 2,950 ft.; top salt 2,348 ft.

Coke County

Haggerty et al's No. 1 Gaston, 340 ft. from S and 654 ft. from W, Sec. 11, Jos. Young Sur.
Drlg. 3,256 ft.

Concho County

Maverick Oil Co.'s No. 1 Jim Rice, 330 ft. from S and W lines of NW¼ of Sec. 18, S.N. Ry. Sur.
S.D. 150 ft.

John W. Westbrook's No. 1 Ledbetter, 1,950 ft. from N and 3,300 ft. from E lines of Sec. 2, Sur. No. 1,673.
Drlg. 620 ft.

Crane County

Gulf Prod. Co.'s No. 1 Waddell, C NW NW Sec. 4, Blk. B-27, P.S.L. Sur.
T.D. 6,159 ft.; to ream and fish core bbl.

Wahlenmaier Pet. Corp.'s No. 2 Kloh, 330 ft. from S and W, Sec. 33, Blk. 44, Twp. 3s, T.&P. Sur.
Material.

Crockett County

Adkins Bros.' No. 1 Shannon, 330 ft. from S and 630 ft. from W of 80 in SW¼ Sec. 27, Blk. WX, G.C.&S.F. Sur.
Machine.

Leslie-Hiller et al's No. 1 Todd, 1,200 ft. N and 330 ft. E, Sec. 36, Blk. WX, G.C.&S.F. Sur.
S.D. 821 ft.

John I. Moore's No. 1 A. C. Hoover, 330 ft. from S and E lines of Sec. 4, Blk. FF H.&B. Sur.
Spudded and shut down.

Culberson County

Anderson-Prichard Oil Corp., Magnolia Pet. Co. et al's No. 1 Borders, 1,255 ft. N and 2,305 ft. from W, Sec. 34, Blk. 69, P.S.L. Sur.
Drlg. 2,002 ft.

Dawson County

Adams & Turner's No. 1 John Robinson, 1,320 ft. from N line, 1,320 ft. from W line of Sec. 46, Blk. M, E.L.&R.R. Sur.
S.D. 4,860 ft.

Ector County

Continental Oil Co.'s No. 1 Wight, 2,200 ft. from S and W, Sec. 21, Blk. 43, Twp. 1s, T.&P. Sur.
Drlg. 4,313 ft.

W. P. Dunning, Jr., et al's No. 1 Mrs. Clarence Scharbauer, 440 ft. from S and 2,200 ft. from W lines of Sec. 33, Blk. 44, Twp. 1n, T.&P. Sur.
T.D. 920 ft.; U.R.

Gulf Prod. Co.'s No. 3 Goldsmith, 440 ft. from S and E, Sec. 22, Blk. 44, Twp. 1s, T.&P. Sur.
Drlg. 2,412 ft.

Gulf Prod. Co.'s No. 3 Goldsmith, 3,300 ft. from N and 440 ft. from E lines of Sec. 15, Blk. 44, Twp. 1s, T.&P. Sur.
Drlg. 3,276 ft.

Empire G. & F. Co.'s No. 2 Wight, 440 ft. from N and W, Sec. 2, Blk. 43, Twp. 1s, T.&P. Sur.
Drlg. 3,247 ft.

Sinclair Prairie Oil Co.'s No. 2 Wight, 2,200 ft. from N and 440 ft. from E, Sec. 10, Blk. 43, Twp. 1s, T.&P. Sur.
Location.

Sun and Atlantic's No. 1 O. B. Holt, 1,980 ft. from S and 660 ft. from W lines of Sec. 6, Blk. 43, Twp. 1n, T.&P. Sur.
Drlg. 3,224 ft.

Sun Oil Co.'s No. 1 W. P. Edwards, 466 ft. from N and E lines of Sec. 20, Blk. 43, Twp. 3s, T.&P. Sur.
Drlg. 1,421 ft.

Roy Westbrook's No. 1 Yarbrough & Allen, 440 ft. from N and W, Sec. 26, Blk. B-14, P.S.L. Sur.
Elev. 2,824 ft.; S.D. 4,004 ft.

York & Harper's No. 1 H. C. Foster, 660 ft. S and E Sec. 13-43-2s, T.&P. Sur.
T.D. 790 ft.; U.R.

Fisher County

L. A. Daniels et al's No. 1 J. J. Nickless, 1,700 ft. S and 2,070 ft. W of SW cor. of Sec. 60, H.T.&B. Sur., but in Sub. 1, G. W. Lawrence Sur., 6 miles E of Roby.
S.D. 135 ft.

Tide Water's No. 2 Howard, 1,620 ft. from N and 1,550 ft. from E lines of Sec. 180, Blk. 2, H.&T.C. Sur.
Drlg. 2,130 ft.; S.O. 1,995-2,000 ft.

Tide Water Oil Co.'s No. 1 Newman, 1,-753 ft. from N and 1,054 ft. from W of NE¼ Sec. 2½, John Rodman Sur., 4 miles SE of Roby.
Drlg. 2,776 ft.

Gaines County

Wahlenmaier Pet. Co. et al's No. 1 E. H. Jones, 660 ft. S and W, Sec. 414, Blk. G, C.C.S.D.&R.G.N.G. Sur., 23 miles NW of Seminole.
Shut down.

W. T. Walsh et al's No. 1 Averitt, 330 ft. N and E lines, Sec. 228, Blk. G, W.T.R.R. Sur.
Rigged up rotary.

Garza County

Dobbs Oil Co.'s No. 1 W. E. Connell, 330 ft. from SW of NW ¼ Sec. 75, Blk. 5, G.H.&H. Sur.
S.D. 2,405 ft.

Glasscock County

Moore Bros.' No. 1 Mrs. E. Miller, 660 ft. from S and E lines of Sec. 35, Blk. 34, Twp. 5s, T.&P. Sur.
Drlg. 2,681 ft.

John I. Moore et al's No. 1 J. S. McDowell, 1,980 ft. from N line and 660 ft. from E line of Sec. 22, Blk. 34, Twp. 2s, T.&P. Sur.
Topped lime 9,471 ft.; show oil and gas 9,484-9,520 ft.; increase oil 9,594-9,600 ft. and 9,633-55 ft.; T.D. 10,115 ft.; made 150-bbl. flow when opened on test.

Howard County

T. P. Coal & Oil Co.'s No. 1 Douthit, 400 ft. from S and 2,310 ft. from W, Sec. 116, Blk. 29, W.&N.W. Sur.
Drlg. 378 ft.

John I. Moore et al's No. 1 Snyder, 330 ft. from S and W, Sec. 23, Blk. 30, Twp. 1s, T.&P. Sur.
Elev. 2,302 ft.; T.D. 3,010 ft.; pumping 12 bbls. oil per day.

Jeff Davis County

C. M. Joiner's No. 1 Jones & Coffield, 770 ft. from N and 1,322 ft. from E, Sec. 8, Blk. 3, H.&T.C. Sur.
S.D. 1,610 ft.; rigged up rotary.

Jones County

Anderson & Kerr's No. 1 Jennings, 330 ft. from N and W lines of SE ¼ of Sec. 1, I.&G.N. Sur.
Drlg. 1,752 ft.

Campbell et al's No. 1 Rowell, in E half of W half, Sec. 6, T.&P. Sur.
Coring 2,500 ft.

Conway & Gholson's No. 1 Cauthen, 150 ft. from S and W lines of Sec. 24, G. A. Williams Sur.
Drlg. 1,512 ft.

D'Arman & Shelton's No. 1 J. H. Huffaker, 150 ft. from S and 2,490 ft. from E lines of Sec. 25, D.&D.A. Sur.
T.D. 1,929 ft.; U.R. csg.

J. N. Cooper's No. 1 W. E. Robinson, 660 ft. from S and E, Blk. 7, L. Matthews Sur.
Location.

R. L. Crawford et al's No. 2 Waltzer, 200 ft. from S and 532 ft. from W, Sec. 1, Blk. 2, T.&N.O. Sur.
Drlg. 466 ft.

Farris & Fikes No. 3 Jennings, 220 ft. from S and W of NE of SE¼, Sec. 207, B.B.&C. Sur.
Machine rigged up.

Farris & Fikes' No. 2 Jennings, 220 ft. from S and 660 ft. from W of NE of SE¼, Sec. 207.
Top pay 2,051 ft.; T.D. 2,057 ft.; made 16 bbls. in 45 min.

Farris & Fikes' No. 1-A Jennings, 1,980 ft. from S and 150 ft. from W, Sec. 1, I.&G.N. Sur.
Machine.

Herring & Hodges' No. 1 Mrs. C. D. Cowsart, 200 ft. from N and W, Sec. 42, Orphan Asylum Lands.
Rigged up spudder.

Humphrey-Guiberson Oil Corp.'s No. 1 Jennings, 220 ft. from N and 2,420 ft. from W, Sec. 207, B.B.B.&C. Sur.
Drlg. 329 ft.

Humphrey-Guiberson Oil Corp.'s No. 1 Swenson, 220 ft. from N and 1,540 ft. from W, Sec. 1, I.&G.N. Sur.
Drlg. 670 ft.

N. H. Martin's No. 2 Dorsey, 200 ft. N and 700 ft. W of E½ Sub. 5, M. Buene Sur.
Top pay 1,981 ft.; S.D. 1,984 ft.

Tom D. Medders et al's No. 1 J. E. Manley, 1,170 ft. from S and E lines of Sec. 35, Blk. 14, T.&P. Sur.
Drlg. 1,328 ft.

Reliance Oil Co.'s No. 1 Crow, 660 ft. from S and 1,320 ft. from E lines of Sec. 9, D.&D.A. Sur.
Location.

Sandy Ridge Oil Co.'s No. 3 Jones, 1,520 ft. from N and 660 ft. from W, Sec. 5, Blk. 15, T.&P. Sur.
Location.

T. K. Simmons' No. 1 Beatty, 220 ft. from S and E of Sec. 4, O.A.L. Sur.
Rigged up.

Ungren & Frazier's No. 1 Jennings, 220 ft. from S and 660 ft. from E of E½ of NE¼ Sec. 207.
Top pay 2,036 ft.; T.D. 2,047 ft.; flowing 25 bbls. per hr.

Kimble County

Forrest Dev. Co.'s No. 1 Stopp, 660 ft. from N and 1,866 ft. from W, Sec. 682, Blk. N, G.H.&S.A. Sur., 18 miles SE of Junction.
Rigged up.

Wilcox Oil & Gas Co.'s No. 1 J. Patterson, 200 ft. from N and E, Sec. 1, D.&P.R.R. Sur.
Show oil 3,677-82 ft.; drlg. 4,135 ft.

Loving County

D. C. Evans' No. 1 W. D. Johnson, 2,310 ft. from N and 1,650 ft. from W, Sec. 12, Blk. 57, Twp. 1, T.&P. Sur.
Drlg. 2,515 ft.

Mason Oil Co.'s No. 1 Kyle, 1,980 ft. from S and E, Sec. 22, Blk. 55, Twp. 1, T.&P. Sur.
S.D. 2,970 ft.

Lynn County

Hart Oil Co.'s No. 1-A Edwards, 425 ft. from N and 865 ft. from E line, Sec. 29, Blk. 1, L.&S.V. Sur.
S.D. 5,005 ft.

Martin County

Harris & Meyers' No. 1 L. T. Brook.
S.D. 135 ft.

William Hix' No. 1 O. B. Holt, C of Labor 12, League 319, Garza County School Lands.
Spudded and shut down.

Wright & Scott's No. 1 Flannigan, 330 ft. N and E, Sec. 22, Blk. 37, Twp. 1s, T.&P. Sur.
S.D. 100 ft. for casing.

McCulloch County

Mark Hill's No. 1 Moore Bros., 934 ft. from S and 150 ft. from E lines of Sec. 2, State School Land Sur.
T.D. 690 ft.; P.B. to 605 ft.

Poulter et al's No. 2 Wyres, 50 ft. from S and 160 ft. from W, P. W. Rocins Sur.
Drlg. 1,452 ft.

Mitchell County

Lockhart et al's No. 1 W. C. Berry, 330 ft. from N and 2,310 ft. from E, Sec. 86, Blk. 97, H.&T.C. Sur.
Drlg. 1,500 ft.

Sawtell & Grueber's No. 1 Morrison.
T.D. 2,810 ft.; P.B. to 2,800 ft.; acidized; pumped 60 bbls. fluid 15% wtr. second 24 hrs.

Nolan County

Harris et al's No. 1 Georgia Institute of Technology, 330 ft. from S and 1,320 ft. from W, Sec. 89, Blk. 24, T.&P. Sur.
S.D. 200 ft.

Pecos County

Comanche P. L. Co.'s No. 1 Schreff-Blackmore, 330 ft. from SW and 1,650 ft. from SE lines of Sec. 28, Blk. 3, H.&T.C. Sur.
S.D. 1,680 ft.

Gulf Prod. Co.'s No. 7 White & Baker, 330 ft. from N and E, Sec. 15, Blk. Z, T.C.Ry Sur.
Drlg. 962 ft.

C. R. Richards' No. 4 Courtney, 930 ft. from N and W, Sec. 78, Blk. OW, 300 ft. S of No. 2.
Elev. 2,967 ft.; drlg. 860 ft.

Tex-Mex Pet. Co.'s No. 1 Phillips-Brandenburg, 330 ft. from S and E of N half Sec. 42, Blk. 3, H.&G.N. Sur.
T.D. 725 ft.; ran csg.

Trans-Pecos Oil Co.'s No. 1 F. W. Popham, 1,650 ft. from S and E, Sec. 235, Blk. 11, G.H.&S.A. Sur.
Material.

Trans-Tex. Oil Co.'s No. 1 Caldwell, 330 ft. from E line and 330 ft. from S line of Sec. 27, Blk. 40, Twp. 9, T.&P. Sur.
Drlg. 4,022 ft.

Reagan County

Bahan & Rhodes' No. 1 Reed, 1,320 ft. from N and W, Sec. 31, Blk. 35, Twp. 5s, T.&P. Sur.
Rigged up.

Dobbs Oil Co.'s No. 2 Friend, 660 ft. from W and 1,375 ft. from S, Sec. 3, Wm. Allen Sur.
Location.

Skelly Oil Co.'s No. 6 Grayson, 1,320 ft. from N and 440 ft. from W, Sec. 32, Blk. 8, University Lands.
Rigged up.

Sun Oil Co.'s No. 1 L. W. Young, Sec. 1, G.C.&S.F. Sur., Abst. 170.
Drlg. 2,238 ft.

Reeves County

Dunigan's No. 1 Davis, 330 ft. from N and W, Sec. 7, Blk. 58, P.S.L. Sur.
Location.

Grisham-Hunter Corp.'s No. 1 T. P. Land Trust, 1,320 ft. from S and W lines, Sec. 27, Blk. 57, Twp. 2, T.&P. Sur.
Elev. 3,020 ft.; T.D. 1,360 ft.; fishing.

K. Slack et al's No. 1 Reeves, C NW ¼ Sec. 20, Blk. 56, P.S.L. Sur., 22 mi. N of Toyah.
Top lime 2,630 ft.; T.D. 3,165 ft.

Washington Oil Co.'s No. 1 J. M. Radford Grocery Co., 2,640 ft. from S and 340 ft. from E, Sec. 39, Blk. 56, P.S.L. Sur.
Elev. 3,169 ft.; T.D. 502 ft.

Runnels County

John Caster et al's No. 1 Giesecke, 330 ft. from N and 713 ft. from E, Sub. 3, Blk. 130, J. Hughes Sur. 227.
S.D. 502 ft.

Schleicher County

John M. Cooper et al's No. 1 Bert Page, 1,290 ft. from N line, 1,470 ft. from W line of Sec. 40, Blk. L, G.H.&S.A. Sur.
T.D. 6,257 ft.; P.B. to 5,555 ft.; acidized and made estimated 6,000,000 ft. gas; may re-treat.

W. C. Proctor et al's No. 1 Judkins & Spencer, C SW ¼ Sec. 4, Blk. V-28.
S.D. 2,205 ft.

Scurry County

Coffield & Guthrie's No. 1 Wade, 990 ft. from N and 330 ft. from W, Sec. 115, Blk. 97, H.&T.C. Sur.
T.D. 2,040 ft.; ran csg.

Magnolia Pet. Co.'s No. 1 W. M. Scott, 330 ft. from S and W, Sec. 186, Blk. 3, H.&G.N. Sur., 5 miles S of Snyder.
Elev. 2,341 ft.; drlg. 2,855 ft.

Sutton County

Fleetborn Oil Corp.'s No. 1 G. S. Allison, 660 ft. from S and W, Sec. 49, Blk. A, G.W.T.&P. Sur.
Rigged up rotary.

Taylor County

Anderson et al's No. 1 J. C. High, 1,-310 ft. from N and 990 ft. from E, Sec. 8, L.&L. Sur.
Rigged up machine.

Hickok's No. 1 Tittle, 660 ft. from N and W, Sec. 37, Blk. 19, T.&P. Sur.
S.D. 2,825 ft.

Skaggs & Brewer's No. 1 McClure, 330 ft. from N and E, 8¼ SW Sec. 8, L.A. L. Sur.
T.D. 1,920 ft.; swabbing 15 bbls. day.

Tom Green County

Mays Oil Co.'s No. 1 I. Funk, 1,980 ft. from S and 660 ft. from W, Sec. 38, Blk. 5, H.&T.C. Sur.
Material.

Twin Oil Co.'s No. 1 W. E. Green, 1,650 ft. from N and 1,400 ft. from W, L. P. Moore Sur. 169½.
S.D. 315 ft.

Upton County

Gulf Prod. Co.'s No. 103 McElroy, 1,980 ft. from S and 660 ft. from W, Sec. 197, Blk. F, C.C.S.D.&R.G.N.G. Sur.
T.D. 12,786 ft.; P.B. to 2,518 ft.; standardized; to pump.

Humble O. & R. Co.'s No. 1 Pollock, C of NW Sec. 4, Blk. M.
Drlg. 10,371 ft.

J. G. McKenzie's No. 1 Taylor, 1,650 ft. from S and 330 ft. from E lines of Sec. 32, Blk. B-3, G.H.&S.F. Sur.
T.D. 630 ft.

W. C. Ray's No. 1 Cordova-Union, 2,025 ft. from S and 2,895 ft. from W of NE¼ Sec. 3, A.B. Sur., 5 mi. SE of McCamey.
Drlg. 1,840 ft.

A. E. Lynch et al's No. 1 Sherk, 330 ft. from N and E, Sec. 25, Blk. 2, M.K.&T. Sur., 2 mi. E and 8 mi. N of McCamey.
Drlg. 825 ft.

Ward County

Alexander's No. 1 Richter, 1,650 ft. from NW, 1,170 ft. from NE line of Sec. 37, Blk. 34, H.&T.C. Sur.
T.D. 2,455 ft.; fishing.

California Co. et al's No. 1 McFarland, 990 ft. from NE and 330 ft. from SE Sec. 29, Blk. 34, H.&T.C. Sur.
T.D. 2,526 ft.; making 30 to 40 bbls. day.

C. Cochran's No. 1 K. Greene, 990 ft. from NW and 2,980 ft. from SW, Sec. 29, Blk. B-29, P.S.L. Sur.
Drlg. 322 ft.

Eastland Oil Co.'s No. 1 Johnson, 330 ft. NW and NE, Sec. 24, Blk. 34, H.&T.C. Sur.
T.D. 2,570 ft.; making 15 bbls. day.

Empire G. & F. Co.'s No. 2 Smith, 990 ft. from N and 1,650 ft. from E, Sec. 5, Blk. F.
T.D. 2,570 ft.; building new derrick.

Hill et al's No. 1 Clements, 330 ft. from NW and 990 ft. from SW, Sec. 34, Blk. 5, H.&T.C. Sur.
T.D. 2,375 ft.; ran tubing.

Ice & Luce's No. 1 Baker, 1,650 ft. from NE and 330 ft. from NW, Sec. 15, Blk. 5, H.&T.C. Sur.
P.B. 2,480 ft.; shot; ran tubing; to test.

Jerry Sines' No. 1 Brown, 330 ft. from NW and NE, Sec. 13, Blk. 5, H.&T.C. Sur
T.D. 3,148 ft.; P.B. 3,055 ft.; preparing to pump.

Stanolind O. & G. Co.'s No. 1 W. H. Martin, 1,650 ft. SW and 330 ft. from SE Sec. 40, Blk. 34, H.&T.C. Sur.
Drlg. 2,362 ft.

Abell Brothers' No. 1 Lancaster Estate, 294 ft. N 20 degrees and 15 minutes W of NE cor. Sec. 61, Blk. 3, H.&G.N. Sur. in Pecos County, 5½ miles down Pecos River from NW cor. of Pecos and E cor. of Reeves County.
Spudded and shut down.

Winkler County

Atlantic Oil Prod. Co.'s No. 1 Simmons, 2,310 ft. from S and 330 ft. from E, Sec. 34, Blk. 26, P.S.L. Sur.
Location.

Cree & Hoover's No. 1 Crowe, 2,310 ft. from S and 330 ft. from W, Sec. 14, Blk. B-5.
Drlg. 2,010 ft.

Gulf Prod. Co.'s No. 3 Keystone Cattle Co., 330 ft. from N and W of NE¼ Sec. 11, Blk. B-3.
T.D. 3,765 ft.; 38 bbls. oil and 52 bbls. wtr. in 24 hrs.; tubing stuck.

Gulf Prod. Co.'s No. 4 Keystone Cattle Co., 330 ft. from N and E, Sec. 26, Blk B-3.
T.D. 3,756 ft.; P.B. 3,591 ft.; fishing bailer.

Gulf Prod. Co.'s No. 6 Keystone Cattle Co., 330 ft. from N and W of NE¼ Sec. 14, Blk. B-2.
Elev. 2,950 ft.; T.D. 3,676 ft.; to test.

Gulf Prod. Co.'s No. 7 Keystone Cattle Co., 330 ft. from N and W of SW¼ Sec. 14, Blk. B-2.
Elev. 2,954 ft.; T.D. 3,652 ft.; C.O.; flowed 60 bbls. in 48 hrs.

Gulf Prod. Co.'s No. 8 Keystone Cattle Co., 330 ft. from S and W of Sec. 13, Blk. B-2.
Elev. 2,964 ft.; drlg. 4,464 ft.

Gulf Prod. Co.'s No. 9 Keystone Cattle Co., 330 ft. from S and W of Sec. 18, Blk. B-2.
Elev. 2,946 ft.; S.D. 4,126 ft.

K-D Oil Co.'s No. 1 P. Mitchell, 1,650 ft. from N and 2,310 ft. from E, Sec. 35, Blk. B-10, P.S.L. Sur.
Cable tools rigged up.

Mascho Oil Co.'s No. 1 Evans, 1,320 ft. from N and W, Sec. 8, Blk. A-66.
S.D. after spudding.

Mascho Oil Co.'s No. 1 Evans, 1,170 ft. from N and 1,320 ft. from W, Sec. 46, Blk. 73, P.S.L. Sur.
S.D. 180 ft.

Richardson's No. 1 B. F. Jenkins, 440 ft. from S and E, Sec. 13, Blk. 77, P.S.L.
S.D. 3,075 ft.; estimated 12,000,000 to 20,000,000 ft. of gas, 2,067-75 ft.

Showers & Mosscrief & Crafton O. Co.'s No. 2 Pure-Walton, 2,300 ft. N and E Sec. 1, Blk. 3-B.
Location.

Showers & Mosscrief & Crafton O. Co.'s No. 1 Pure-Walton, 440 ft. E and 1,320 ft. S Sec. 2, Blk. 3-B, P.S.L. Sur.
Derrick.

Skelly Oil Co.'s No. 3 Halley, 2,300 ft from N and 1,320 ft. from E, Sec. 35, Blk. B-11.
T.D. 3,855 ft.; P.B. 3,192 ft.; to acidize.

Stool Oil Co.'s No. 1 Lowett, 330 ft. from N and E, Sec. 36, Blk. 56, P.S.L. Sur
T.D. 3,130 ft.; P.B. 3,091 ft.; testing.

Sun Oil Co.'s No. 1 Crow, 440 ft. from S and W, Sec. 23, Blk. B-5.
Location.

Sun Oil Co.'s No. 1 Walton, 2,280 ft. from S and 440 ft. from E, Sec. 8, Blk. B-3.
T.D. 1,930 ft.; set csg.

Westbrook's No. 1 Brown & Altman, 2,310 ft. from N and E, Sec. 5, Blk. B-5.
S.D. 2,535 ft.

Thurman et al's No. 1 Seth Campbell 18-B-3, 330 ft. from S and 1,650 ft. from W lines of Sec. 18, Blk. B-3, P.S.L. Sur.
T.D. 1,379 ft.; lost circulation.

Wilgo Oil Corp.'s No. 1 Campbell, 900 ft. from N and 300 ft. from E Sec. 2, Blk. 5, P.S.L. Sur., 3 miles E of Kermit.
Elev. 2,884 ft.; T.D. 4,639 ft.; P.B. 3,800 ft.; ran casing.

Yoakum County

C. J. Davidson et al's No. 1 Bennett, 1,320 ft. from N and E, Sec. 678, John H. Gibson Sur.
Elev. 3,557 ft.; T.D. 5,090 ft.; shut down for 7-in. casing with 800 ft. oil in hole; show gas 3,400-10 ft. and 5,085-90 ft.; ran csg.; waiting on cmt. to set.

Texas Panhandle Wildcats

Week Ending October 12

Carson County

Danube Oil Co.'s No. 1 Bryan, 308 ft. from N and 409 ft. from E of N½ of NE¼ Sec. 107, Blk. 4, I.&G.N. Sur.
T.P. 3,095 ft.; T.D. 3,167 ft.; P.B. to 3,150 ft.; S.D.

Robert Watchorn's No. 1 Eller, 330 ft. from S and E lines of W½ and SE¼ of Sec. 9, Blk. 7, H.&G.N. Sur.
T.D. 3,801 ft.; P.B. to 3,050 ft.; drlg. by pipe 2,890 ft.

Childress County

Alma Oil Co.'s No. 1 Lowe, 660 ft. from N and W of SW¼ Sec. 417, Blk. H, W.&N.W. Sur., 8 of Kirkland.
S.D. 8,234 ft.

K. T. Wilson et al's No. 1 Scruggs, 1,320 ft. from S and W lines of SW¼ of Sec. 495, Blk. H, W.&N.W. Sur.
Water well drilled.

Collingsworth County

Tom Hunter et al's No. 1 Tinsley, 660 ft. from S and 1,020 ft. from E of NE¼ Sec. 8, Blk. 13, H.&G.N. Sur.
Derrick.

Smith Bros.' No. 1 Pierce, C NE¼ Sec. 107, Blk. 21, H.&G.N. Sur.
S.D. 2,830 ft.

Gray County

Blackwell O. & G. Co. et al's No. 1 Furneaux, 330 ft. from S and E lines of SW¼ of Sec. 110, Blk. B-2, H.&G.N. Sur.
Drlg. 2,912 ft.

Drilling Exploration Co.'s No. 1 Lapold, 330 ft. S and W, Sec. 141, Blk. 3, I.& G.N. Sur.
Material.

Hagy et al's No. 1 Chadwick, 320 ft. N and E, Sec. 210, Blk. B-21, H.&G.N. Sur.
Drlg. 3,245 ft.

Harry Foster's No. 1 Johnson, 330 ft. from N and E lines of Sec. 21, L. L. Erwin Sur.
S.D. 490 ft.

Plains Holding Co.'s No. 1 Morse-Gulf, 330 ft. S and W, Sec. 57, Blk. 25, H.&G.N. Sur.
Derrick.

Saulsbury Oil Co.'s No. 1 Carpenter, C NE¼ Sec. 37, Blk. 25, H.&G.N. Sur.
Drlg. 2,435 ft.; 800 ft. oil in hole.

Taylor Oil Co.'s No. 2 W. H. Taylor, 1,320 ft. from N and W lines of NW¼ of Sec. 79, Blk. B-2, H.&G.N. Sur.
Standardizing 2,750 ft.

Hall County

Davis et al's No. 1 Knorpp, 330 ft. S and W, Sec. 7, Blk. A, A.B.&M. Sur.
Spudded and shut down.

Hartley County

O. V. Beck et al's No. 1-A Matador ranch, 350 ft. from N and 385 ft. from W of most northerly NW cor. Sec. 20, Blk. 22, C.S.S. Sur.
Drlg. 2,727 ft.

Hutchinson County

Burnett's No. 1 Ingerton, 770 ft. from S and 1,320 ft. from W, Sec. 327, Blk. Z, E.L.R.R. Sur.
Location.

Phillips Pet. Co.'s No. 1 Fromma, 2,640 ft. N and 660 ft. E of W½ of E½ Sec. 2, Blk. 1, B.&B. Sur.
T.D. 2,294 ft.; standardizing.

Power Pet. Co.'s No. 1 Hodges, 660 ft. S and E of most southerly 80 acres of S 160 acres of SE 200 acres, Sec. 16, Blk. M-35, T.C. Sur.
Rig.

Stinnett Oil Co.'s No. 1 Starnes, 330 ft. from N and 275 ft. from W of E½ of NW¼ Sec. 32, Blk. M-23, T.C. Ry. Sur.
S.D. 2,765 ft.

Texas Plains Oil Co.'s No. 1 State, 2,500 ft. SW of SW cor. of Sec. 15, Blk. 47, H.&T.C. Sur., and 330 ft. from N bank of Canadian River.
T.D. 2,731 ft.; P.B. 2,615 ft.; swbd. 86 bbls. oil in 7 hrs.

Moore County

Anderson & Kerr's No. 1 Wilson, 660 ft. from S and E, Sec. 209, Blk. 3-T, T.& N.O. Sur.
Derrick.

Anderson & Kerr's No. 1 Wilbur, 660 ft. from S and E lines of NW¼ of Sec. 226, Blk. 3-J, T.&N.O. Sur.
Drlg. 2,200 ft.

Shamrock O. & G. Co.'s No. 1 Bruley & Ryan, C SW¼ of NE¼ Sec. 164, Blk. 3-T, T.&N.O. Sur.
S.D. 3,332 ft.

Ochiltree County

James R. Macon's No. 1 W. R. Norris, 330 ft. S and 990 ft. E, Sec. 212, Blk. 43, H.&T.C. Sur.
Moving in heavy duty equipment.

Wheeler County

Allender & Heare's No. 1 Harvey, 330 ft. from S and W lines of E½ of SW¼ of Sec. 67, Blk. 13, H.&G.N. Sur.
Machine R.U.

Northern Texas Utilities' No. 1 Calhon, 330 ft. from N and E of SE¼, Sec. 72, Blk. 13, H.&G.N. Sur.
T.D. 2,155 ft.; P.B. to 2,134 ft. and shut in for gas well.

Sunray Oil Co.'s No. 1 Tinley, 330 ft. from N and E of SE¼ Sec. 26, Blk. 24, H.&G.N. Sur.
Drlg. 1,368 ft.

Ralph Parsons Moves Offices to Chicago

CHICAGO, Oct. 14.—Ralph M. Parsons has moved the main offices of his company to 310 S. Michigan Avenue, Chicago, from Mount Vernon, Ohio, which has been headquarters since its organization a year ago. The company is an engineering and contracting organization, devoted primarily to work in the oil refining field, specializing in the design and construction of Dubbs cracking and reforming units.

Construction of a 750-bbl. special Dubbs cracking unit at the plant of the Home Oil Refining Co., Great Falls, Mont., was recently completed by this company and it is now installing additional equipment there. It is also building a 12,500-bbl. complete refinery, of which the primary feature is an 8,000-bbl. Dubbs cracking unit, for the Wilshire Oil Co. of Los Angeles.

Parsons is also starting work on a 700-bbl. special Dubbs cracking unit for Malco Refineries, Inc., Artesia, New Mexico, and has two other Dubbs cracking units under contract.

Saturday morning, October 5, trucks began loading office and drafting room equipment and household goods of some 40 employes in Mount Vernon, and that night the truck caravan left for Chicago. Monday morning the company was functioning in its new quarters.

Parsons will continue to maintain offices at 4800 Santa Fe Avenue, Los Angeles, in charge of Milton Lewis, and at 815 Tower Petroleum Building, Dallas, Texas, in charge of Allen M. Peairs.

Appointed on Federal Tender Board

WASHINGTON, D. C., Oct. 14.—The appointment of James A. Frear, of Wisconsin, as chairman of the Federal Tender Board in East Texas, and the elevation of C. L. Waterbury, a "former Texas and Oklahoma Oil operator," as a member of that board, interested political circles. They have already arrived at Kilgore, Tex. Mr. Frear is a former congressman from Wisconsin, and so far as known, has never had any connection with the oil industry. He takes the place left vacant by the resignation of Norman L. Meyers, who retired from the position of chairman of the Tender Board to devote full time to his duties as executive secretary of the Petroleum Administrative Board, of which he is a member.

Mr. Waterbury, formerly attached to the Division of Investigations of the Department of the Interior, oil enforcement unit, has been appointed to the vacancy left on the Tender Board by the resignation of Malcolm S. McCorquodale. These appointments had hardly been announced when persistent rumors started that another politician was to be appointed to fill the vacancy left by the resignation of Charles Fahy, former chairman of the PAB.

Thomas G. Kelliher, who has been stationed in the East Texas area as a government representative, has been designated as Acting Director of Federal Tender Agency No. 1 which conducts investigations of applications for federal tenders.

The President has approved an allotment of $100,000 to carry on the work of the Petroleum Administrative Board from October 17 to April 1. The allotment was made from old Public Works funds.

Wildcats in Trego Are Showing Oil

Two wildcats in Trego County, western Kansas, were showing oil this week. Lauck and others' No. 1 Lang, SE SE NE Section 1-14-21w, had Siliceous lime at 3,898 feet and drilled to 3,900 feet. It tested two-thirds of a bailer of oil per hour. The crew was underreaming 7-inch casing to the top of the formation.

Vickers Petroleum Co. and others' No. 1 Secor, NW cor. Section 25-15-24w, got the top of the lime (perhaps Mississippi), at 4,300 feet and drilled to 4,306 feet. It bailed from 1 to 2 bailers of oil per hour through cavings. The crew was underreaming 7-inch casing to shut off the cavings preparatory to a real production test.

In the Oxford Pool in Sumner County, Kansas, Larie Oil & Gas Co. and Barnsdall Oil Co.'s No. 9 Wenrich, CWL NE NW Section 23-32-2, flowed 2,582 bbls. of oil while drilling. It had Dolomite at 2,888 feet, setting pipe at that depth.

In the Oklahoma City Field, in Oklahoma, Larkins & Warr's No. 1 Marti flowed 618 bbls. in the last 4 hours of a 24-hour test; same operators' No. 1 Warsaski made 463 bbls. of oil and 12,000,000 feet of gas in 24 hours, and their No. 1 Rouner flowed 604 bbls. in the last 4 hours of a 24-hour test.

Continental Oil Co.'s No. 1 McCarty, in Section 12-1-7, southeast of the Fitts Pool, was making 20,000,000 feet of gas on Monday at a total depth of 4,445 feet and the gas ended a fishing job for tools. Paramount Petroleum Co. has made a location for No. 1 Weatherly, in NE SW SW Section 24-1-7, on a block on which a dry hole had been drilled. Good prices are being paid for acreage in Townships 1-7 and 1-8, the latter in Coal County.

Big Field Map

Chester Imes has had E. C. Jacobson, engineer and map man of Tulsa, who originated the nomenclature map of Kansas and Oklahoma for the Mid-Continent Oil and Gas Association, outline for him a map 15 feet wide and 143 feet long, mounted on rollers in a case. It covers 1,170 townships in Kansas and 660 townships in Oklahoma, and is drawn on a scale of 2 inches to the mile. It is being made by the Triangle Blue Print & Supply Co. of Tulsa.

Jacobson has developed as a key to the map a 54 by 66-inch official nomenclature map of the two states, showing every oil field in green and gas fields in red.

Mark Murphy, chief production clerk at the Pure Oil Co.'s Greendale district office in Midland County, central Michigan, is spending a week's vacation on a motor trip.

Market Record of Active Oil Stocks Listed on New York Stock Exchange

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1935 High	1935 Low	Week ended Oct. 11 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends Paid in 1934	1934 High	1934 Low	1933 High	1933 Low
71	48½	5,500	66	63¼	66	Amerada Corp.	788,675	N.P.	50cQ	7-31-35	$2.00	55⅝	39	47⅝	18½
28	20½	11,000	21⅞	21	21¾	Atlantic Refining	2,664,904	$25	25cQ	9-16-35	1.00	35¼	21½	32½	12⅜
10⅝	5⅞	14,200	9⅞	9⅛	9⅝	Barnsdall Corp. A	2,195,397	$5	....	5-11-31	....	10	5⅞	11	3
14	3⅜	85,900	13⅜	12⅜	13	Columbia Gas & Elec.	11,610,036	N.P.	....	5-15-34	‡ .25	19¼	6⅝	28⅛	9
10½	6½	35,400	8½	7¾	8¼	Consolidated Oil Corp.	13,996,072	N.P.	14c	10-31-34	.42	14¼	7¼	15¾	5
23	15⅛	30,200	20⅝	19⅝	20¼	Continental Oil of Delaware	4,682,722	$5	25c	10-31-35	.50	22¾	15¾	19⅝	4⅞
20⅝	11¾	8,800	18⅛	17	17¾	General Asphalt	387,149	$10	....	6-15-32	....	23½	12	27	4⅝
4⅛	1½	63,200	4⅛	2¾	3⅞	Houston Oil (new)	1,098,618	$25	....	10-17-30	....	5⅝	2½	7⅜	1⅞
1⅞	⅜	300	½	½	½	Louisiana Oil Refining	1,302,158	N.P.	....	.....	....	3⅜	¾	4	⅝
13⅜	9½	7,600	11	10	10⅞	Mid-Continent Petroleum	1,857,912	$10	25c	12-2-35	.50	14¾	9⅛	16	3¾
20⅝	9	1,200	17	15½	16⅞	National Supply of Delaware	382,591	$25	....	5-15-31	....	21⅛	10	28⅝	4
14⅛	9¼	16,300	10½	9¾	10¼	Ohio Oil Co.	6,563,377	N.P.	15c	6-15-35	.45	15⅞	8½	17⅝	4¾
11⅝	6¾	1,800	10	9¼	10	Pacific Western Oil	1,000,000	N.P.	40c	11-30-34	.40	9⅜	5½	9½	3
1⅜	1½	500	¾	¾	¾	Panhandle P. & R.	198,770	N.P.	....	.....	....	2½	⅝	4¼	⅜
30⅜	13¾	56,852	30⅜	28¾	29⅞	Phillips Petroleum	4,154,687	N.P.	25c†	11-30-35	1.00	20¾	13⅜	18¾	4¾
11⅝	6½	4,400	10⅜	9⅞	10⅛	Plymouth Oil Co.	1,050,000	$5	25c	3-30-35	75c & 4% Stk.	16¾	7¼	17⅝	6¾
10⅛	5⅞	23,500	8⅜	7⅝	8⅛	Pure Oil Co.	3,038,370	N.P.	....	9-1-30	....	14⅞	6⅛	15⅜	2½
44¾	29½	2,400	42½	41½	42½	Royal Dutch N. Y. shares	fl. 503,642,000	fl. 100	$1.70	8-1-35	1.35	39⅛	28⅝	39¾	17⅝
35⅞	20¾	12,000	29¼	28	29⅛	Seaboard Oil of Delaware	1,244,283	N.P.	15cQ†	9-15-35	1.00	38⅜	20¾	43⅜	15
11½	5½	10,200	9¾	8¾	9⅝	Shell Union Oil	13,070,625	N.P.	....	6-30-30	....	11½	6	11⅝	4
98½	63⅛	1,600	91	89⅞	90½	Shell Union Oil pfd.	400,000	$100	....	7-1-31	....	89	57	61	28½
18¾	5	3,300	6⅜	5	5⅛	Simms Petroleum	461,698	$10	1.25 liq.	10-18-35	.55	17⅛	7¼	12⅜	4⅞
11½	6½	700	11	10⅜	11	Skelly Oil	1,008,514	$25	....	12-15-30	....	11½	6	9⅞	3
15¾	10⅝	58,000	11⅜	10⅝	11¼	Socony-Vacuum	31,154,379	$25	15cQ	9-16-35	.60	19⅞	12½	17	6
38⅞	27¾	25,100	32⅞	32¼	32⅞	Standard Oil of California	13,102,900	N.P.	25c	9-18-35	1.00	42⅞	26½	45	19½
28	23	13,500	25⅜	24½	25¼	Standard Oil (Indiana)	15,215,677	$25	25cQ	9-16-35	1.00	32¾	23¼	34	17
32	20	200	20½	20¼	20¼	Standard Oil of Kansas	200,000	$10	50cQ	10-31-34	2.00	41	26	39⅞	12¾
50½	35¾	30,300	45¼	43¾	44⅝	Standard Oil of New Jersey	25,856,081	$25	50cSA‖	6-15-35	1.25	50⅛	39¼	47½	22¾
75½	60½	900	68⅞	67	68⅞	Sun Oil	1,733,013	N.P.	25cQ	9-16-35	$1 & 9% Stk.	74¼	51½	59	35
23¾	16½	54,000	21⅝	20	21¼	Texas Corp.	9,486,417	$25	25cQ	10-1-35	1.00	29⅜	19⅝	30⅛	10⅜
9¼	3¼	66,900	9¼	8¼	8⅜	Texas Pacific Coal & Oil	880,703	$10	....	12-31-29	....	6½	2½	6½	1⅝
12	7⅝	17,900	9⅛	8½	8¾	Tide Water Associated	5,632,136	N.P.	....	2-16-31	....	14⅜	8	11¾	3⅛
103⅝	84	900	99¾	97½	97½	Tide Water Associated pfd.	626,222	$100	$1.50Q	10-1-35	§8.50	87	64½	65¼	23½
20¼	14¾	11,500	18⅞	17¾	18⅝	Union Oil of California	4,386,070	$25	25cQ	11-9-35	1.00	20½	11½	23⅜	8½
26½	20⅞	700	22	21¾	22	Union Tank Car Co.	1,200,000	N.P.	30cQ	9-3-35	1.20	25¾	15⅝	22¾	10½
2⅝	1	200	2⅛	2	2	Wilcox Oil & Gas	424,839	$5	....	5-10-28	....	5¾	2	5½	2

*Ex-dividend. †Plus extras. ‡Payable in preferred stock. §Partly on account of accumulation. ‖Dividend 4/75 Mission Corp. paid 3-15-35.

Market Record of Active Oil Stocks Listed on New York Curb

Compiled by Carl H. Pforzheimer Co., 25 Broad Street, New York City, Members New York Stock Exchange and New York Curb Exchange

1935 High	1935 Low	Week ended Oct. 11 Sales	High	Low	Close	Stocks—	Total shares outstanding	Par value	Dividend rate	Payable or last paid	Dividends Paid in 1934	1934 High	1934 Low	1933 High	1933 Low
42	30½	100	39	38¾	39	Buckeye Pipe Line Co.	200,000	$50	75cQ	9-14-35	$3.00	38	26	29¾	25
4¼	1⅝	2,000	2¾	2⅜	2½	Carib Syndicate	799,020	25c	....	.....	....	5½	1½	7¾	¼
157	115	100	125	125	125	Chesebrough Mfg. Co.	120,000	$25	$1Q†	9-27-35	11.50	150	116	129	71
2⅞	¾	29,800	2	1⅝	2	Cities Service	37,804,394	N.P.	....	6-1-32	....	4¼	1¼	6¼	1½
2⅛	½	900	1¾	1⅝	1⅝	Colon Oil	2,200,000	N.P.	....	.....	....	3¼	½	4	¼
⅞	¼	500	¼	¼	¼	Cosden Oil	399,687	$1	....	.....	....	3⅞	½	3⅞	1¾
23½	10	19,300	22¼	21⅜	22	Creole Petroleum	6,974,356	$5	....	.....	....	14⅜	9⅝	12	4¾
6⅜	4	400	4½	4	4½	Darby Petroleum	509,696	$5	25c	7-15-35	.50	7½	4⅛	8	2⅛
2	¾	No sales ..	..	..	..	Derby Oil & Refining	263,162	N.P.	....	.....	....	2¼	1	2¾	⅞
38	34	50	34	34	34	Eureka Pipe Line	50,000	$50	$1Q	8-1-35	4.00	37	30	41¾	20
74¾	50¼	4,600	65	61½	64	Gulf Oil Corp.	4,538,101	$25	....	10-1-31	....	76¾	49¾	62	24
64	44	6,600	54¼	52⅝	54¼	Humble Oil & Refining (new)	8,923,935	N.P.	25cQ	10-1-35	§1.25	49½	33¼	105½	40
22½	15¾	10,700	19⅝	19	19	Imperial Oil of Canada	26,919,871	N.P.	25cSA†‡	6-1-35	.92½	17⅞	12⅝	15⅞	6½
6	3⅝	100	5⅛	5⅛	5⅛	Indiana Pipe Line	300,000	$10	15cSA†	11-15-35	.35	6⅞	3⅝	8	3⅛
39¾	28	15,400	34½	33⅝	33¾	International Petroleum	14,247,088	N.P.	75cSA†‡	6-1-35	2.28	33⅜	19⅜	23½	8⅞
9½	4⅜	7,600	7⅜	7⅛	7⅜	Louisiana Land & Exp.	3,000,000	N.P.	....	.....	....	5	2⅛	2¼	⅛
6¾	3½	200	4	3⅞	4	Lion Oil Refining	270,000	N.P.	....	10-27-30	....	6	3⅜	9½	1¼
9½	4½	1,800	8¼	8	8¼	Lone Star Gas	5,382,723	N.P.	15cSA	8-15-35	‖ .16	8⅜	4¼	11⅞	4¾
5½	4⅛	400	4¾	4⅝	4¾	Mountain Producers	1,682,182	$10	15cQ	10-1-35	.60	5½	4	6½	2½
18¾	11¾	1,400	17⅜	16⅞	..	National Fuel Gas	3,810,183	N.P.	25cQ	10-15-35	1.00	18⅛	13⅛	20	10
10½	6¾	500	9½	9⅜	9½	National Transit	509,000	$12.50	40cSA	6-15-35	.75	9½	7	10	5½
3¼	2	400	2⅝	2½	2½	New Bradford Oil	1,445,202	$5	10cSA	9-16-35	.20	2½	1¾	2⅛	½
2⅛	1	100	1¾	1¾	1¾	New Mexico and Arizona	1,000,000	$1	....	.....	....	2¾	1	1⅞	½
4⅞	3	No sales ..	..	..	..	New York Transit	100,000	$5	15cSA	4-15-35	.30	4¾	3	4⅞	3
7	5¼	No sales ..	..	..	..	Northern Pipe Line	120,000	$10	25cSA	7-1-35	.50	7	4⅝	6⅛	4¼
3½	1¼	46,100	3½	2⅞	3⅜	Pantapec Oil	1,608,700	N.P.	....	.....	....	2⅝	⅞	3¾	½
1½	⅝	No sales ..	..	..	..	Ryan Consolidated	296,931	N.P.	....	.....	....	3⅜	⅞	4¼	⅝
7½	5½	700	6⅞	6⅜	..	Salt Creek Producers	1,496,859	$10	20cQ	8-1-35	.80	7⅞	5½	9¼	3½
28⅜	21⅝	2,200	25½	24¾	25½	South Penn Oil	1,200,000	$25	30cQ	9-30-35	1.20	26½	17½	22⅛	11
5	3⅞	No sales ..	..	..	..	Southern Pipe Line	100,000	$10	15cSA	9-3-35	.25	5½	3½	6	2⅛
52½	45¼	No sales ..	..	..	..	Southwest Penna. Pipe Lines	35,000	$50	$1Q	10-1-35	5.00	47	41	43	24½
21⅝	18	1,900	20⅝	20⅛	20⅝	Standard Oil of Kentucky	2,604,790	$10	25cQ†	9-14-35	1.50	18⅜	14⅝	19¼	8⅜
12	7¾	200	11	11	11	Standard Oil of Nebraska	188,403	$25	....	6-20-34	.50	16⅞	8¼	20½	11
19¾	11½	1,400	14¼	14	14¼	Standard Oil of Ohio	753,740	$25	....	1-3-33	....	28½	12¼	41	15½
2	⅞	6,400	2	1⅞	2	Sunray Oil	1,610,810	$1	....	4-15-31	....	2	11/16	1½	¼
6⅞	5	1,600	6⅛	5⅝	6⅛	Texon Oil & Land	336,028	N.P.	15cQ	9-30-35	.90	11	4⅝	13¾	6¼

*Ex-dividend. †Plus extras. ‡Payable in Canadian funds. §Includes 50 cents on old $25 par value stock. ‖Payable in preferred stock.

Note.—In comparing highs and lows for the several years in the two tables, it will be necessary to take into consideration cases where there have been stock split-ups.

PERSONAL

JOE HEMPHILL, formerly located at Midland, Tex., for the Magnolia Petroleum Company, has been transferred to the land department at Lake Charles, as scout of the South Louisiana district.

W. H. STEUVE, Oklahoma Gas & Electric Company, Oklahoma City, Okla., spent the week-end at Petroleum Electric Club's board of directors meeting held near Joplin, Mo.

PAUL VON WEYMARN and wife of Oslo, Norway, are at Pincher Creek, Alberta, where the former is supervising a resumption of operations on Weymarn Petroleums' No. 2 test.

DR. D. M. WIGGINS, formerly dean of education at Hardin-Simmons University at Abilene, Tex., has been inaugurated as president of the Texas College of Mines and Metallurgy at El Paso.

FRANK S. THOMPSON, manager of the General American Tank Car Corporation's Cleveland, Ohio, office, is spending a vacation in Corpus Christi, Tex., and Tulsa, accompanied by MRS. THOMPSON. Mr. Thompson formerly was in charge of the company's Houston and Tulsa offices.

E. W. KRAMPERT, geologist at Casper, Wyo., was in Denver, Colo., recently.

FRANK L. KISTLER, of Denver, Colo., and New York, was a visitor in Tulsa last week.

H. N. HICKEY, of Denver, Colo., geologist with the California Company, was in Casper, Wyo., checking geological reports.

JOHN CULLEN, division manager of the Stanolind Oil & Gas Company, has returned to Casper, Wyo., from Tulsa, where he visited company headquarters.

WORTH M. SAXON has joined the Pure Oil Company staff as production engineer at Chicago. He has been production engineer with Gypsy Oil Company, Tulsa.

W. T. NIGHTENGALE, geologist of the Mountain Fuel Supply Company, from Rock Springs, Wyo., was in Casper, Wyo., visiting company headquarters of Ohio Oil Company.

HAROLD L. NUTTING, vice president and superintendent of operations of the Mid-American Oil Company, left Denver, Colo., for San Francisco, Calif., on a business trip.

M. T. RATHVON, general superintendent of the Argo Oil Company, accompanied by MRS. RATHVON left Casper, Wyo., for Seattle, Wash., for three weeks' vacation. They plan to attend the exposition at San Diego, Calif., before returning.

HARVEY W. GILBERT, president of the Gilbert Oil Company, Beaumont, Tex., has returned from an extended tour including Montreal and Ottawa, Canada; Boston, New York, Washington and St. Louis, returning by the way of Florida.

CARL A. YOUNG, secretary, American Petroleum Institute, Dallas, Tex., was a visitor at the Interstate Oil Compact meeting held in Oklahoma City, Okla., October 11.

JOHN R. DOGGETT, division office clerk for the Humble Oil & Refining Company in the Gulf Coast division office, has been transferred to the Hastings, Tex., district as district chief clerk and warehouseman.

CHAS. M. FERGUSON, Oklahoma City manager of Parkersburg Rig & Reel Co., accompanied by MRS. FERGUSON and JERRY HODSON, of the Odessa, Tex., branch of the same company and his wife have just returned from the World's Series ball games.

HENRY J. HAWLEY, assistant division manager of the California Company in Texas, Dallas, has been elected chairman of the Petroleum Geologists of that city. CHARLES B. CARPENTER, with the Bureau of Mines, was promoted from secretaryship to vice chairman and R. H. STEHR, with the Texas Seaboard Oil Company, was named secretary.

JIMMY McLAREN, scout and land man for the Phillips Petroleum Company, with headquarters at Corpus Christi, Tex., was a business visitor to Houston, Tex., the past week.

W. C. TROUT, president Lufkin Foundry & Machine Company, Lufkin, Tex., has returned from a business trip to the North and East where he visited the Machine Tool Show in Cleveland, Ohio.

H. S. TIMMINS, new business manager of the Canadian Western Natural Gas, Light, Heat & Power Company of Calgary, was the guest speaker at the October meeting of the Men's Club of Claresholm, Alberta.

JOHN M. KINDLE, assistant superintendent of the Ranger district for the Lone Star Gasoline Company, has been named superintendent of the gasoline absorption plant the company is building near Trinidad in Henderson County, Texas.

RALPH E. FLANDERS, president, American Society of Mechanical Engineers, also president Jones & Lamson Machine Company, Vermont, Conn., was the guest speaker at a luncheon in his honor tendered by the Oklahoma Gas & Electric Company in Oklahoma City, October 16. Mr. Flanders was also guest speaker at a dinner given in his honor by the Mid-Continent section of the A.I.M.E. in Tulsa, Wednesday evening, October 16.

J. S. ROSS, Oklahoma City manager, Southern States Company, made a business trip to Oxford, Kans., last Friday.

A. D. OETJEN is now assistant retail manager of the Detroit division of Standard Oil Company (Indiana). He was formerly in charge of oil sales and promotion work at Chicago.

MISS FLOSSIE DAVIDSON, secretary of the land and geological department of the Rocky Mountain division of the Stanolind Oil & Gas Company, is in Omaha, Neb., for a two weeks' vacation.

PARK HUNTINGTON, division engineer of the Rocky Mountain division of the Stanolind Oil & Gas Company, Casper, is at the Pondera oil field, northern Montana, where he will carry out some experimental work on company wells.

A. R. WILSON, manager producing department, the Texas Company, for the Rocky Mountain district, has returned from the Cut Bank Field in Montana to Denver headquarters. Mr. Wilson was a passenger northward in the Manning & Terry plane which crashed in Wyoming resulting in the death of three persons.

H. M. HERRON is now general manager of the export department of Texas Corporation, having been appointed following election to the chairmanship of the board of T. RIEBER, formerly vice president in charge of the export and marine departments. Mr. Herron was formerly assistant manager of the export department. Other appointments are W. H. BORIE as manager of the South American division, C. M. CLAEYS as manager of the European division and A. E. THAYER as assistant manager of the export department.

Brought in Red Coulee

Dr. Thomas B. Williams, widely known as a geologist in western Canada and throughout the western United States, first came into touch with the petroleum industry in 1924 in Kansas. In that year while on the geological staff of Kansas State Agricultural College he began his consulting work. In 1926 he joined the staff of Alberta Pacific Consolidated Oils, Ltd., of Calgary, and put his whole energy into assisting to bring that organization into a place among leading Alberta oil companies.

DR. T. B. WILLIAMS

Since the termination of his connection at the end of 1930, Doctor Williams has been conducting a consulting practice in geology and mining, the latter being his old time association, in Calgary. At various times he has been connected as geologist with other oil companies, including Commonwealth Petroleum, Ltd., Calmont Oils, Ltd., and Vanalta Oils, Ltd.

Although actively interested in the Turner Valley oil development, Doctor Williams is probably better known as the man who brought in the international Red Coulee Field. On several occasions he has been employed by the Geological Survey of Canada, and this year he is doing work for that organization in Saskatchewan. He is also president of the Alberta Association of Petroleum Geologists.

Doctor Williams was born in Picton, Ontario. His mining studies were carried on at Queen's University, Kingston, and his geological at the University of Wisconsin.

PARAGRAPHS

E. L. GREEN, Jr., regional supervisor of the oil and gas division of the Texas Railroad Commission, Houston, Tex., was married last week to MISS VIRGINIA FAULKNER of Pampa.

T. G. ROACH, district superintendent for Humble Oil & Refining Company, in charge of the Roanoke district in southern Louisiana, has been transferred to the Tomball, Tex., district.

E. G. DAHLGREN, chief clerk, Oil Conservation Department, Oklahoma Corporation Commission, Oklahoma City, Okla., went to Houston, Tex., to attend the fall meeting of the A.I.M.E. Petroleum Division.

W. E. WRATHER, geologist, Dallas, Tex., was the first to address the students in the oil geology course offered by Southern Methodist University through Dallas College. He spoke to the class on the "Origin of Oil."

C. E. WHITNEY, sales manager for the Baker Oil Tools, Inc., of Los Angeles, Calif., has returned to his office after an extended business tour through Oklahoma, Kansas, Louisiana and Texas.

S. C. MOORE, district superintendent for Humble Oil & Refining Company, in charge of the Tomball, Tex., district, has been transferred to the Gulf Coast division office as assistant division superintendent.

D. W. WOFFORD, tool pusher in charge of drilling operations for Humble Oil & Refining Company in the Roanoke district, has been promoted to district superintendent in charge of the Roanoke district.

R. L. PATTINSON has returned to Chatham, Ontario, after a visit to St. Petersburg, Fla., where MRS. PATTINSON and family will spend the winter.

W. R. BOYD, executive vice president, American Petroleum Institute, New York City, was a visitor in Oklahoma City last week en route to his farm in Freestone County, Texas, for a much needed rest.

ELMER LAMB, assistant superintendent for the Tide Water Oil Company in the West Texas district, is seriously ill with pneumonia in a Dallas hospital. He was transported by ambulance plane from Midland to Dallas for hospitalization.

ROBERT WILKINSON of Calgary, Alberta, is visiting Vancouver, British Columbia, and other Pacific Coast points.

M. J. DAVIES of Globe Royalties, Ltd., has returned to Calgary, Alberta, from a business trip to Los Angeles, Calif.

C. E. OLMSTED, president of The Texas Company of California, recently returned to Los Angeles following a business trip to New York.

WILLIAM LYON MACKENZIE, who has been visiting relatives at Petrolia, Ontario, left recently for his home in Stockport, England.

S. F. SHAW, consulting engineer, Oklahoma City, Okla., has returned to his office after several weeks spent at his home in San Antonio, Tex.

W. B. CASE, engineer for Shell Union Oil Corporation, of New York, was a visitor at the Tulsa Shell offices on an inspection of producing properties.

HUGH MATIER of the Union Oil Company was in Los Angeles last week on business but subsequently returned to his headquarters in Vancouver, British Columbia.

DANIEL T. PIERCE, in the executive department of the Sinclair Prairie Oil Company at New York, was a business visitor to the company's offices at Houston, Tex.

R. OTIS McCLINTOCK, president of the Ada Belle Oil Company, and SOL MEALY, head of the Commercial Drilling Company, have returned from a business trip into western Kentucky.

HARRY A. TRUE, head of the land department of the Texas Company in Montana, has returned to Shelby from Denver. His daughter was one of the victims of the Manning & Terry plane crash.

F. W. DUMRAESE, in charge of the land department of the Gulf Coast division for Sinclair Prairie Oil Co. at Houston, Tex., was a business visitor to the company's office at Fort Worth, Tex., the past week.

Do You Remember?

From The Oil and Gas Journal Files

25 YEARS AGO

October 20, 1910

Waters-Pierce Oil Co. buys 2,500,000 bbls. of Mexican crude oil from the Mexican Petroleum Co. at 82½ cents per barrel, United States money. The crude ranges from 14 degrees upward in gravity. H. Clay Pierce and E. L. Doheny personally took part in the transaction.

The Union National Bank of Houston, Tex., has $8,000,000 in deposits. J. S. Rice is president.

A condensed statement of pipe line runs for September credits California with 6,700,000 bbls.; Mid-Continent, 4,978,000 bbls.; Illinois, 2,447,000 bbls.; Pennsylvania Grade, 2,659,000 bbls., and Gulf Coast, 1,002,715 bbls.

20 YEARS AGO

October 21, 1915

Lester Gillespie, son of Frank Gillespie, prominent Oklahoma producer, wins a game for Kansas University football team against Drake with a 65-yard run for a touchdown.

Michael O'Herron, pipe line contractor and former natural gas official, dies at the age of 59 years. George C. Delleker, auditor for the Ohio Fuel Supply Co., dies in Columbus, Ohio, aged 53 years. Mrs. Lewis Emery, Jr., passes away in Bradford, Pa., age 74 years.

The Cushing Field in Oklahoma, which, a short time ago, was burdened with too much crude, cannot now supply the increasing demand and a sellers' market prevails. Ten-cent premiums over the posted price are common.

Luther Manuel, 12-year-old negro, has an income of $12,000 per month in oil royalties. He lives at Haskell, Okla.

10 YEARS AGO

October 22, 1925

Blair & Co., New York bankers, take over the capital stock of the Waite Phillips Co. after paying the final installment ($19,000,000) on the purchase price. The capital stock in the Waite Phillips Co. was owned by Mr. Phillips and a few of his executive officers. Mr. Phillips says he will retire from the oil business.

H. R. Decker, of Houston, Tex., believes he has a plan of rotary drilling that will make it possible to drill to 10,000 feet. He has many patents on rotary drilling.

The Gypsy Oil Co.'s Shumway lease in Butler County, Kansas, has produced over 50,000 bbls. per acre in 8 years.

A. D. SLOAN, vice president of the Sinclair Prairie Pipe Line Company at Fort Worth, Tex., spent several days in Houston, Tex., the past week on business.

FORD V. KING, Oakland, Calif., representative of the Rio Grande Oil Company, has become a member of the regular staff of the company's sales department.

F. N. LAIRD of The Texas Company and J. A. CAMPBELL were the principal speakers at the monthly meeting of the California Natural Gasoline Association, held in Los Angeles.

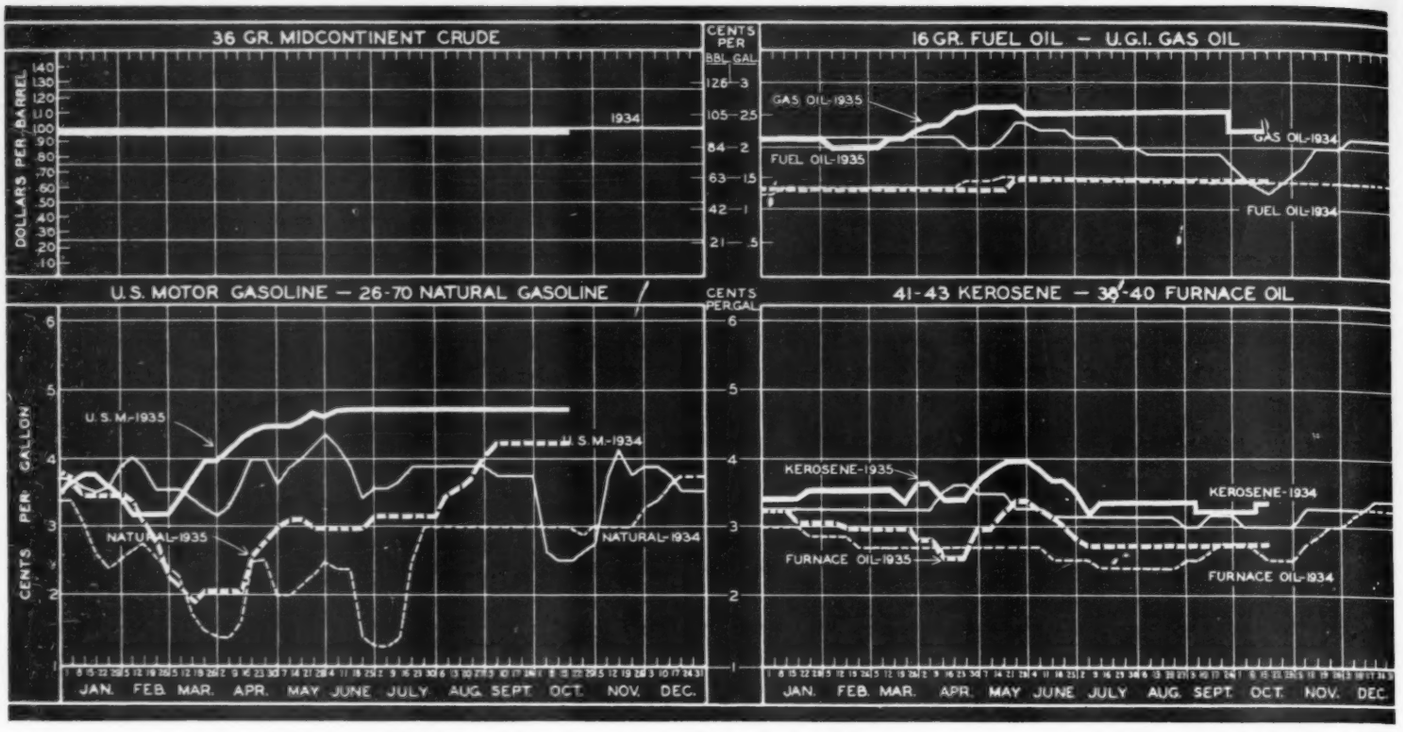
J. F. TOMALIN, of the Vacuum Oil Company in France, left New York City last week on the Normandie of the French line after a visit to the main offices of the Socony-Vacuum Oil Company, Inc.

W. G. KING, JR., for some time division manager of the central division of the Richfield Oil Company with headquarters in San Francisco, was recently transferred to the southern division as division manager with headquarters in Los Angeles.

GEORGE KENT, in charge of the refining department of the International Petroleum Company, Ltd., in Peru, left New York City last week on the Santa Clara of the Grace line for Talara, Peru. He was accompanied by MRS. KENT and their two daughters.

F. T. MANLEY, vice president of the refining department, H. T. CLINE, vice president and general counsel and R. C. POWER, chief engineer, all with the Texas Company with headquarters at New York, are spending several days at the company's offices at Houston, Tex.

JAMES H. LEWIS, president of the Sunset Oil Company, who recently returned to Los Angeles from an inspection trip to the San Joaquin Valley, California, where the company has completed a tentative plan for development of the 15,000-acre Hacienda tract south of Tulare Lake in Kings County, will leave for Texas in a few days to inspect holdings of the Marine Corporation, a subsidiary of Sunset.



Group 3 Gasoline Flouts at Traditions and Refrains From Autumn Slump

By T. F. SMILEY

Group 3 gasoline's contempt for traditions was exemplified further this week, when instead of easing off in conformity with the conventional October pattern it revealed an increasing firmness which left no doubt concerning the ability of present price levels, which ruled throughout the recent season of peak consumption, to keep their seat. The tank car market, which, according to all the laws made and provided, should have begun to sink into its annual period of autumnal lassitude, was declared to be stronger than at any previous time this year.

Various factors contributed to the robust tone of the motor fuels, but probably occupying top place were sustained demand and a refinery throughput adjusted reasonably close to consumer requirements rather than to plant capacity. Uneasiness over disordered conditions in California was lessening. That helped. So did a stream of inquiries from overseas predicated on war possibilities. Well worthy of mention too is the growing realization among Mid-Continent refiners that they need not dash into the spot market and dump gasoline at distress prices every time they accumulate a little more than orders in hand will take care of.

Fighting Grade Going Abroad

There has been a substantial export movement of aviation fighting grade in recent weeks, and so long as war clouds darken the skies this is expected to continue. A few cargoes of low-octane material went abroad too at prices which were reported to have been unnecessarily low in view of later developments. It was said, however, that refiners were showing no disposition to make further export shipments unless they got a price in tune with domestic quotations.

East Texas now occupies a position in the market scene distinctly different from the one it held less than a year ago. But the wild overproduction which formerly prevailed there, demoralizing the motor fuel market generally, stamped that area with an evil reputation which it has been difficult to wear off. As a matter of fact there have been few, if any, surplus accumulations of East Texas gasoline, qualified to obtain federal tenders, since last spring that were sufficiently large to constitute a serious market threat. Nevertheless, it is declared that even within recent weeks it has been possible to gain price concessions from easily scared refiners in other districts by whispering to them that "a lot of stuff was piling up in East Texas again."

Refined Oil Market Barometer

Export demand has injected fresh strength into motor fuel and lubricants on the East Coast and the Gulf and this has quickened trade in these materials in some interior areas. Other oil products are displaying a firmer tone. Notwithstanding discouraging conditions in California, the feeling grows that the demoralization will be confined virtually to the West Coast.

EAST COAST. Export market strong, though actual business not large.

MID-CONTINENT. Gasoline strong. Naturals unsteady. Lubricants up. Wax improving.

GULF COAST. Gasoline strong. Kerosene firm.

PENNSYLVANIA. Neutrals up. Bright stocks strong. Gasoline and cylinder stock weak.

CALIFORNIA. Gasoline weak. Price war extended to San Francisco. Fuels and Diesels firm.

CHICAGO. Gasoline spotty, but in good demand for season. Heating oils firm.

East Texas stocks of motor fuel were reported to be unusually low this week. Helping to bring about this condition was a purchase of approximately 200 cars for shipment to the Gulf Coast, to be delivered over the next 10 days. It was reported that the buyer would have taken more if it had been obtainable. The exhausted condition of East Texas inventories resulted in Oklahoma and North Texas refiners getting orders which they otherwise might not have received, thus further tightening the market.

Jobber Stocks Near Bottom

Jobber stocks in consuming areas fed by Group 3 were reported to be near bottom in many instances, and buying from this source must soon appear in the spot market. Consumption in all areas was holding up remarkably well, and observers expressed belief that, regardless of weather conditions, no surplus stocks were in the least likely to develop in the Mid-Continent in the immediate future.

Lack of stability which characterized the natural gasoline market last week was still apparent. In Oklahoma the demand from Kansas and Oklahoma refiners was sufficient to keep prices intact, but in Texas the 26-70 grade quotations dropped three-eighths cent and the 18-pound material lost a quarter-cent.

The unusual disparity between Oklahoma and Texas prices is accounted for by a slump in Gulf Coast buying. The reduced prices attracted new purchasing, however, and Monday of this week around 160 cars were bought.

Although quotations on 12- and 14-pound material continue to be carried, they mean little. Manufacture of these grades has virtually been discontinued. Only in exceptional cases can the refiner afford to pay the price which the manufacturer must have in order to compensate him for

(Continued on Page 102)

Continued Rise in Export Gasoline Is Feature on Eastern Coast and Gulf

By C. O. WILLSON

NEW YORK, Oct. 14.—Export prices on gasoline continued upward over the past week and again feature the refined market trading for the Gulf and East Coast areas. At the start of the week sellers were refusing orders of 5¼ cents and most quotations ranged from 5⅜ to 5½ cents on the 64-66 375 endpoint grade at the Gulf with corresponding advances in other grades.

The export demand on paraffin base lubricants was also stronger. Most companies have advanced their price on Pennsylvania bright stock (No. 8 color) to 25¼ cents in barrels with a bulk domestic price of 19 to 19¼ cents. Prices on 200-3 color Pennsylvania neutral oil in barrels for export range from 29 to 29½ cents, a 1-cent advance over quotations of 10 days ago. While no other price changes were reported the export market on practically all products was firm and it was believed that this week would see advances in gas oil and crude oil quotations at the Gulf.

In the domestic end markets continued to mark time. At Portland, Me., and Boston efforts were being made to bring a resumption of normal quotations on gasoline in both tank car and retail markets. The price advances were not meeting with 100 per cent support and it was not certain that they could be maintained. The Portland retail price was advanced 2 cents. In the New York harbor area sellers generally were satisfied with the firmness in the tank car and small barge market on gasolines. The low octane was quoted at 5¾ cents in tank cars, 6 cents for middle octane, 6¼ cents for 65 octane and above and 6½ to 6¾ cents for ethylized regular grades. Barge prices as quoted by a few sellers were one-eighth to one-fourth cent lower.

Export Prices Encouraging

The higher export prices at the Gulf were encouraging to those who are hoping that the tank car schedules at Atlantic Seaboard points can be maintained. The Gulf market on U. S. Motor material for coastwise shipment has been 5¼ to 5½ cents depending on octane rating. During this period U. S. Motor for export was as low as 4⅝ cents with the 64-66 375 endpoint 4¾ cents. The latter prices now are at least one-half cent above those levels and it is predicted that they will go still higher. This will remove the threat of dumping export material on the domestic market and make it easier to maintain present prices in New York harbor and other eastern points.

There are so many angles to the present export market situation that few will attempt a complete analysis. As explained in these columns last week the increased demand since the first of the month has come from French and other European buyers. The actual business in gasoline already placed has not been large. Five cargoes have been reported sold in open market transactions and it is also understood that inter-company shipments call for increased deliveries to European points by major operators over the remainder of the year. The several inquiries of the past two weeks have shown that certain companies apparently do not have any gasoline to offer at this time. At least their prices have been one-eighth to one-fourth cent above the general quotations and sales managers have indicated that they do not care to take on additional business at present prices.

In this connection the position of California refiners may differ from those of Gulf and East Coast refiners. There has been a steady movement of California gasoline and some other products to European markets this year. The total is not large but it is assumed by many that with a continuance of heavy crude production refiners there may wish to increase their European business. Those who are watching this possible development daily state that the enlarged movement is not under way at this time. So far, it is said, that Japan and other markets of the Far East appear to be absorbing the excess material available along the West Coast including fuel oil, gas oil, crude oil as well as gasoline. One authority says that Japan will continue to take large quantities, welcoming the chance to buy supplies at low prices. Whether these and other purchases will be large enough to absorb all the available material and prevent increased shipments to European and eastern domestic markets through the Panama Canal remains to be seen.

Another sales manager closely connected with foreign conditions says that the recent strengthening in the European market has been in the making for several months. He points to the large decrease in Russian exports which has forced the export department of the Soviet regime to buy here and other places to cover contractual agreements with European buyers. Large Italian purchases have created a somewhat similar condition in the case of Rumania. This situation has become more acute over the past month due to the war situation with high war risk insurance rates in the movement of oil through the Mediterranean with the possibility that regular shipments to European markets will be held up temporarily.

European Buyers Out

He says this situation would have brought increased buying into American markets in late August and September had not European buyers stayed out of the market in expectation of lower prices.

The accompanying table summarizes East Coast refinery operations based on the latest available reports of the Bureau of Mines.

This table shows that in August, refinery operations were greater than in July and also August, 1934. This meant an enlarged production of refinery products with the exception of gas oil and distillate and a decrease in wax output when compared with August, 1934. Gasoline stocks decreased in August but at the end of the month were higher than the same date in 1934.

Prices

A check did not reveal any important changes from last week in quotations on kerosene, furnace oil, gas oil, Diesel fuel, residual fuels, wax and lubricants except for the advances previously noted. Several sellers said the demand for kerosene is showing steady improvement and they are optimistic regarding the late fall and winter market for that product. The tank car price is 4¾ cents. Some have the same attitude regarding furnace oils which range from 3½ to 3⅝ cents for No. 4, to 4¾ cents for No. 1. The domestic demand for wax is increasing.

EAST COAST REFINERY OPERATIONS

(Data in barrels)

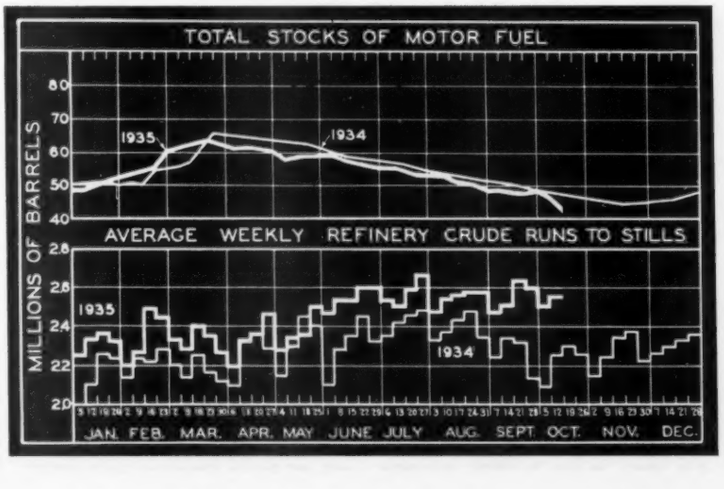
	Aug., '35	Aug., '34	July, '35
Output			
Crude oil runs to stills	490,970	480,640	475,000
Gasoline	6,319,000	5,968,000	6,047,000
Kerosene	807,000	723,000	733,000
Gas oil and distillate	1,338,000	1,764,000	1,696,000
Residual fuel oils	3,853,000	3,631,000	3,202,000
Lubricants	625,000	590,000	618,000
Wax (lbs.)	16,240,000	17,080,000	15,400,000
Coke (tons)	6,400	12,200	14,200
Asphalt (tons)	163,300	160,900	150,600
Stocks End of Month			
Total gasoline	15,502,000	14,741,000	16,570,000
Kerosene	2,660,000	1,943,000	2,477,000
Gas oil and distillate	5,799,000	5,625,000	5,471,000
Residual fuel oils	6,988,000	7,786,000	6,844,000
Lubricants	2,009,000	2,042,000	2,044,000
Wax (lbs.)	48,880,000	53,188,000	51,230,000
Crude scale	24,434,000	22,411,000	25,387,000
Refined	24,446,000	30,777,000	25,843,000
Coke (tons)	28,500	29,100	31,400
Asphalt (tons)	121,800	111,300	128,800

A. P. I. Weekly Refinery Statistics

Week Ending October 12, 1935

	Capacity reporting per cent	Daily crude runs (bbls.)	Total gasoline (bbls.)	Gas oil and fuel oil (bbls.)
East Coast	100.0	478,000	13,166,000	13,169,000
Appalachian	94.8	100,000	1,769,000	898,000
Indiana, Illinois, Kentucky	95.9	352,000	7,351,000	4,398,000
Oklahoma, Kansas, Missouri	84.8	271,000	3,921,000	4,792,000
Inland Texas	48.5	81,000	1,051,000	1,548,000
Texas Gulf	96.4	575,000	4,650,000	11,993,000
Louisiana Gulf	96.4	130,000	1,005,000	4,722,000
North Louisiana and Arkansas	90.0	39,000	323,000	479,000
Rocky Mountains	61.9	47,000	553,000	802,000
California	92.6	485,000	8,148,000	65,198,000
Total United States	89.5	2,558,000	41,937,000	107,999,000

Note: Starting this week, the accompanying graph reflects total finished and unfinished gasoline.



RETAIL OIL MARKETS

Tank wagon and filling station prices on gasoline and kerosene furnished by the larger marketing firms

Prices as of October 15, 1935

Taxes

The gasoline quotations given in the following tables include the 1-cent federal tax, as well as state, county and city taxes. The gasoline is the regular or standard grade. In most areas a third grade and a premium grade are also available.

Discounts

Under the standard form of commercial consumer contract which went into effect March 1, 1934, save in California, Oregon, Washington, Arizona and Nevada, a discount of 1 cent a gallon off tank wagon or 3 cents a gallon off retail prices is permitted for purchases between 4,000 and 10,000 gallons per month, or 4 cents a gallon off retail prices for purchases in lots of more than 10,000 gallons a month. The minimum delivery is 25 gallons.

Standard Oil Co. (Indiana)

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Chicago	15.5	16.0	4.0	9.5
Decatur, Ill.	15.5	16.5	4.0	9.5
E. St. Louis	15.2	17.2	4.0	9.5
Joliet	15.5	16.0	4.0	9.5
Peoria	15.5	15.5	4.0	9.5
Quincy	15.2	17.2	4.0	8.0
Davenport, Ia.	15.5	(†)	4.0	9.5
Des Moines	15.2	(†)	4.0	9.5
Mason City	15.7	(†)	4.0	10.0
Sioux City	15.5	(†)	4.0	9.5
Duluth, Minn.	16.3	18.3	4.0	10.6
Mankato	15.9	17.9	4.0	10.2
Minneapolis	15.9	17.9	4.0	10.2
LaCrosse, Wis.	16.9	18.9	5.0	10.2
Green Bay	17.2	19.2	5.0	10.5
Milwaukee	16.3	16.8	5.0	10.1
Madison	16.9	18.9	5.0	10.2
Detroit, Mich.	13.5	15.5	4.0	9.5
Grand Rapids	15.6	16.6	4.0	8.0
Saginaw	16.1	18.1	4.0	9.3
Evansville, Ind.	17.2	19.2	5.0	10.3
Indianapolis	17.4	19.4	5.0	10.5
South Bend	17.6	19.6	5.0	12.0
Fargo, N. Dak.	16.9	18.9	4.0	11.2
Huron, S. Dak.	17.4	19.4	5.0	10.7
Sioux Falls	16.9	18.9	5.0	10.2
Kan. City, Mo.*	12.9	14.9	4.0	7.0
Springfield	14.6	16.6	4.0	8.9
St. Louis	15.2	17.2	3.5	9.5
St. Joseph*	14.9	16.9	4.0	9.2
Wichita, Kans.	14.4	16.4	4.0	6.8
Bartlesville, Okla.	16.0	18.0	5.0	8.8

*State tax 2 cents, 1-cent city tax and 1-cent federal tax.

†Standard Oil Co. (Indiana) has leased all service stations in Iowa.

Discounts to dealers: Undivided accounts, 1½ cents on premium and regular and 2½ cents on third grade off service station prices; divided accounts one-half cent less than undivided. Discounts to dealers in metropolitan Chicago one-half cent larger than rest of Standard of Indiana territory, namely 4 cents and 3 cents on respective grades. Where prices are more than 1 cent below normal, the discounts are one-half cent less than above.

Stanolax Furnace Oil in Chicago

Effective June 27, 1935, f.o.b. Chicago tank wagon prices: Range oil, less than 100 gallons, 8.5 cents; 100-149 gallons, 7.5 cents; 150 gallons and more, 7.0 cents. No. 1 (36-40 lt. stw. zero), less than 100 gallons, 8.5 cents; 100-149 gallons, 7.5 cents; 150 gallons or more, 7.0 cents; No. 2 (30-34, stw. zero), same prices and quantities as No. 1; No. 3 (22-28, zero), less than 150 gallons, 7.2 cents; 150 gallons or more, 6.2 cents. No. 4 (12-16 zero), less than 400 gallons, 7.2 cents; 400 gallons or more, 6.2 cents, viscosity of No. 4, 35° and 100° F.; No. 5, less than 400 gallons, 5¾ cents; 400 gallons or more 4¾ cents.

Rocky Mountain District

CONTINENTAL OIL CO.

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Denver, Colo.	18.0	20.0	5.0	11.0
Pueblo	18.0	20.0	5.0	13.0
Grand Junction	20.5	22.5	5.0	15.0
Casper, Wyo.	18.5	20.5	5.0	11.5
Cheyenne	18.5	20.5	5.0	13.0
Butte, Mont.	21.0	23.0	5.0	17.5
Billings	19.5	21.5	5.0	16.5
Helena	21.5	23.5	5.0	17.5
Great Falls	20.5	22.5	5.0	17.5
Salt Lake, Utah	18.0	20.0	5.0	16.0
Twin Falls, Ida.	23.0	25.0	6.5	18.0
Boise	22.5	24.5	6.0	18.0
Albu'que, N. M.	20.0	22.0	*6.5	13.0

*One-half cent city tax.

Discount to dealers with or without contract in Continental territory: Undivided dealer discount off service station price, 4 cents; divided dealer accounts, 3½ cents.

Southern District

STANDARD OIL CO. OF KENTUCKY

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Atlanta, Ga.	20.0	22.0	7.0	12.0
Augusta	20.0	22.0	7.0	14.0
Macon	20.0	22.0	7.0	13.0
Savannah	18.0	20.0	7.0	14.0
Birm'ham, Ala.	21.0	23.0	8.0	12.0
Mobile	19.0	21.0	8.0	10.0
Montgomery	22.0	24.0	8.0	12.5
Jackson, Miss.	19.0	21.0	7.0	11.0
Vicksburg	19.0	21.0	7.0	12.0
Jacksonville, Fla.	18.5	20.5	8.0	10.0
Miami	18.5	20.5	8.0	12.5
Pensacola	19.0	20.0	8.0	11.5
Tampa	18.5	20.5	8.0	11.0
Lexington, Ky.	19.5	21.5	6.0	10.0
Covington	18.0	20.0	6.0	11.5
Louisville	18.5	20.5	6.0	10.0
Paducah	18.5	20.5	6.0	10.0

In addition to the state tax of 6 cents Montgomery, Ala., has a county tax of 1 cent per gallon and a city tax of 1 cent per gallon on gasoline, and one-half cent per gallon on kerosene. Mobile and Birmingham, Ala., each have a city gasoline tax of 1 cent per gallon. Pensacola, Ala., has a city gasoline tax of 1 cent.

Southwestern District

MAGNOLIA PETROLEUM CO.

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Dallas, Tex.	15.0	17.0	5.0	7.0
Fort Worth	15.0	17.0	5.0	7.0
Houston	16.0	18.0	5.0	8.0
San Antonio	16.0	18.0	5.0	8.0
El Paso	17.0	19.0	5.0	10.0
Muskogee, Okla.	16.0	18.0	5.0	8.0
Okla. City	16.0	18.0	5.0	8.0
Tulsa	16.0	18.0	5.0	8.0
Ft. Smith, Ark.	14.5	18.0	5.0	8.0
Little Rock	17.0	20.5	7.5	9.5
Texarkana	15.5	17.5	5.0	8.0

Atlantic Coast District

STANDARD OIL CO. OF NEW JERSEY

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Atl'tic City, N. J.	13.5	17.0	4.0	9.0
Newark	13.5	17.0	4.0	7.5
Annapolis, Md.	14.8	18.3	5.0	10.0
Baltimore	14.3	17.8	5.0	7.5
Cumberland	15.8	19.3	5.0	12.7
Wash'g'n, D. C.	12.3	15.8	3.0	9.0
Danville, Va.	16.6	20.1	6.0	12.9
Norfolk	15.1	18.6	6.0	11.3
Petersburg	15.8	19.3	6.0	11.7
Richmond	15.8	19.3	6.0	11.7
Roanoke	16.8	20.3	6.0	12.9
Charles'n, W. Va.	15.0	18.5	5.0	12.6
Parkersburg	14.3	17.8	5.0	11.2
Wheeling	15.5	19.0	5.0	13.2
Charlotte, N. C.	17.9	21.4	7.0	13.9
Hickory	18.2	21.7	7.0	13.1
Mt. Airy	18.2	21.7	7.0	13.2
Raleigh	17.6	21.1	7.0	12.7
Salisbury	18.0	21.5	7.0	13.0
Charleston, S. C.	16.2	19.7	7.0	11.3
Columbia	17.5	21.0	7.0	12.6
Spartanburg	17.9	21.4	7.0	12.9

Tank wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at regular price less one-half cent. Discount for kerosene, 1 cent off tank wagon price for 25 gallons or more under contract (contract not necessary in Baltimore) except in New Jersey, where no discount (if necessary) is given.

Nebraska

STANDARD OIL CO. OF NEBRASKA

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Omaha	16.9	18.9	5.0	10.1
McCook	17.6	19.6	5.0	10.8
Norfolk	17.3	19.3	5.0	10.5
North Platte	17.7	19.7	5.0	10.9
Scottsbluff	18.4	20.4	5.0	11.6

Note: Discounts to dealers; where service station gasoline prices are (maximum overall, including rent) as follows: Reliance, 2½ cents; Standard Red Crown, 3½ cents; Red Crown Ethyl, 3½ cents.

Where service station gasoline prices are below normal resellers' allowances are reduced one-half of the amount below normal, down to the following (minimum overall, including rent): Reliance, 2 cents; Standard Red Crown, 3 cents; Red Crown Ethyl, 3 cents. Discounts to consumers for tank wagon deliveries covered only by Standard Commercial Consumers Contract, effective January 1, 1935.

Ohio

STANDARD OIL CO. OF OHIO

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Ohio points	17.0	19.0	5.0	*12.5

*Includes state tax of 1 cent.

Pennsylvania, Delaware and Part of New England

ATLANTIC REFINING CO.

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Philadelphia, Pa.	15.0	17.0	4.0	9.0
Pittsburgh	16.0	18.0	4.0	10.0
Allentown	15.5	17.5	4.0	9.0
Erie	15.0	17.0	4.0	8.0
Scranton	15.0	15.0	4.0	10.0
Altoona	16.0	18.0	4.0	10.0
Dover, Del.	15.5	17.5	4.0	10.0
Wilmington	15.5	16.5	4.0	9.0
Springf'd, Mass.	13.3	16.7	4.0	7.5
Worcester	13.3	16.8	4.0	7.5
Hartford, Conn.	13.3	16.8	3.0	7.0
New Haven	13.3	15.7	3.0	7.5
Providence, R. I.	12.0	13.5	3.0	7.0

Note—Tank wagon prices are those applicable to consumers purchasing lots of 100 or more gallons in one delivery.

Central South District

STANDARD OIL CO. OF LOUISIANA

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
N. Orleans, La.	17.5	21.0	‡8.0	12.0
Baton Rouge	16.5	20.0	†7.0	11.5
Alexandria	17.5	21.0	†*8.0	10.5
Lafayette	18.0	21.5	‡*8.0	12.5
Lake Charles	18.0	21.5	†*8.0	†11.0
Shreveport	16.0	19.5	†7.0	9.0
Knoxville, Tenn.	20.0	23.5	8.0	14.0
Memphis	18.0	21.5	8.0	9.5
Chattanooga	19.5	23.0	8.0	11.5
Nashville	19.0	23.5	8.0	12.0
Bristol	17.5	20.5	8.0	14.5

*Includes city tax of 1 cent.

†Includes 1-cent parish tax. ‡Includes 2-cent parish tax.

Tank wagon gasoline refers to dealer instead of retail prices.

Price basis to dealers: Undivided dealers at dealer price less one-half cent.

Louisiana kerosene prices include 1-cent state tax.

New York and New England

SOCONY-VACUUM CO., INC.

	Gasoline			Kero.
	Post deal	Serv. sta.	Inc. tax	tank wag.
Albany, N. Y.	14.2	17.7	5.0	7.5
*Met. New York	15.05	19.3	5.0	7.0
*Br'kl'n, Queens	14.8	18.8	5.0	7.0
Buffalo	12.0	14.0	5.0	8.0
Rochester	14.0	17.0	5.0	8.0
Syracuse	13.5	16.0	5.0	8.5
Boston, Mass.	13.0	16.5	4.0	6.75
Portland, Me.	13.5	16.0	5.0	7.5
Manch'ter, N. H.	14.8	18.3	5.0	7.75
Burlington, Vt.	16.2	19.7	5.0	8.5

*Does not include 2 per cent city sales tax which is calculated on basis of net retail price exclusive of state and federal taxes.

Pacific Coast Territory

STANDARD OIL CO. OF CALIFORNIA

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
San Francisco	12.5	14.5	4.0	11.5
Los Angeles	9.5	11.5	4.0	10.5
Fresno, Calif.	13.0	15.0	4.0	13.0
Phoenix, Ariz.	15.0	17.0	6.0	‡16.0
Reno, Nev.	16.5	18.5	5.0	13.0
Portland, Ore.	16.5	18.5	6.0	13.5
Seattle, Wash.	16.5	18.5	6.0	13.5
Tacoma	16.5	18.5	6.0	13.5
Spokane	19.5	21.5	6.0	16.5

*Retail prices posted by Standard Stations, Inc., a subsidiary.

†Prices are at company's plant or depots, as company does not operate stations. A 4-cent per gallon discount is given dealers and customers taking tank wagon lots except in Phoenix where discount is 1 cent.

‡Includes 5-cent state tax.

Canada*

Imperial 3-Star Gasoline
IMPERIAL OIL, LTD.

	Gasoline			Kero.
	Tank wag.	Serv. sta.	Inc. tax	tank wag.
Hamilton, Ont.	22.0	25.0	6.0	16.5
Toronto, Ont.	22.0	25.0	6.0	16.5
Brandon, Man.	30.3	33.3	7.0	21.8
Winnipeg, Man.	28.7	31.7	7.0	20.2
Regina, Sask.	30.0	33.0	7.0	21.5
Saskatoon, Sask.	32.8	35.8	7.0	24.3
Edmonton, Alta.	33.2	35.2	7.0	23.7
Calgary, Alta.	29.5	33.5	7.0	21.0
Vancouver, B. C.	24.5	27.5	7.0	24.0
Montreal, Que.	20.5	23.0	6.0	17.0
St. John, N. B.	26.0	30.0	8.0	19.5
Halifax, N. S.	26.0	30.0	8.0	19.5

*Imperial gallon used in Canada.

In maritime provinces all dealers get 4 cents off service station price. In all other provinces open dealers get 3 cents off service station price and 1 cent additional to 100 per cent accounts, except Montreal City where open dealers get 2½ cents off service station price with 1 cent additional to 100 per cent accounts.

Naphtha

STANDARD OIL CO. (INDIANA)

	Tank wagon*
Oleum spirits	15.7
V.M.&P. naphtha	16.0
Cleaners' naphtha	15.0
Stanisol	15.0

*Prices include 3-cent Illinois tax, but not 1-cent federal tax or 2 per cent retail occupational tax.

Prices f.o.b. Chicago. Each price subject to discount of 1 cent per gallon for 150-gallon lots if covered by contract.

Retail Price Changes

Continental Oil Co. October 4 reduced tank wagon and station gasoline 1 cent in Salt Lake City.

Standard Oil Co. (Indiana) October 8 reduced station gasoline 1 cent in Grand Rapids.

Imperial Oil, Ltd., October 7 reduced tank wagon kerosene 1 cent in Toronto and Hamilton; September 7 reduced tank wagon and station gasoline 2.5 cents in Vancouver.

Standard Oil Co. of California October 10 reduced tank wagon and station gasoline 1 cent in Los Angeles; October 11 reduced tank wagon and station gasoline 1.5 cents in San Francisco.

Magnetic Storm

Tuscon, Ariz. observatory of the U. S. Coast and Geodetic Survey report a moderate magnetic storm began at 6 p.m. (C.S.T.) on October 14 and ended at 6 a.m. (C.S.T.) October 15. The telegrams follow

"Storm began fourteenth. Zero. Moderate."

"Storm ended fifteenth. Twelve."

Sam Earnest has been added to the force of Black, Sivalls & Bryson, Inc., in Fort Worth, Texas.

Charles Newbold, oil operator of Wichita, Kans., was called to Washington last week by death of a brother.

L. L. Bechtel, division superintendent of the Rocky Mountain division of the Stanolind Oil & Gas Company, Casper, is on a big game hunting trip near Pinedale, Wyo.

George T. Hansen, of the Utah Southern Oil Company, of Salt Lake City, Utah, was in Casper, Wyo., at the Ohio Oil Company's offices in regard to unit operations at Garland, Wyoming.

Howard Rockholt, formerly field superintendent in the Altus area of southwestern Oklahoma, for the Gypsy Oil Company, is now in the Hobbs area of New Mexico. His foreman, Maples Taylor, has been transferred to the Seminole district.

PRICES ON REFINED PRODUCTS

All quotations f.o.b. plant in cars for interstate or export movement except as otherwise noted

Prices as of October 15, 1935

The following quotations are exclusive of the federal excise taxes of 1 cent a gallon on gasoline and 4 cents on lubricating oils.

Refinery Gasoline

OKLAHOMA (Group 3)—

U. S. Motor grades:		
Below 63 octane	.04¾	.04¾
63-70 octane	.05¾	.05¾
60-62 400 grade:		
Below 63 octane	.04¾	.04¾
63-70 octane	.05¾	.05¾
64-66 375	.04¾	.05
68-70 360	.05	.05⅛

NORTH TEXAS—

U. S. Motor grades:		
Below 63 octane	.04¾	.04¾
63-70 octane	.05¾	.05¾
60-62 400	.04¾	.04¾
64-66 375	.04¾	.05

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

U. S. Motor grades:		
Below 63 octane		.05⅛
63-70 octane		.06¼
60-62 400		.05⅛

ARKANSAS (Ark., N. La., Miss. del.)—

U. S. Motor grades:		
Below 63 octane		.05⅛
63-70 octane		.06¼

CHICAGO (based on Group 3)—

U. S. Motor grades:		
Below 63 octane	.04¾	.04¾
63-70 octane	.05½	.05¾
60-62 400	.04¾	.04¾
64-66 375	.04¾	.05
68-70 360	.05	.05½
Aviation fighting grade	.05¾	.06

PENNSYLVANIA (inland refineries)—

58-60 U. S. Motor:		
Below 60 octane		.05⅛
60-64.9 octane		.06⅛
65-70 octane		.06¾
64-66 375		.05¾
68-70 350		.05¾

CALIFORNIA (domestic movement)—

54-58 U. S. Motor	.03½	.05
58-60 400	.05	.06

EAST COAST—

U. S. Motor, below 60 octane:		
*New York (Bayonne)		.05¾
Baltimore		.05¾
U. S. Motor, 60-64.9 octane:		
*New York (Bayonne)		.06
Philadelphia		.06
Boston		.06
Baltimore		.06
Charleston, S. C.		.06
U. S. Motor, 65 and above:		
*New York (Bayonne)		.06¼
Philadelphia		.06⅛
Boston		.06¼
Baltimore		.06¼
Charleston, S. C.		.06¼

*All grades of gasoline one-fourth cent less for small barge shipments.

GULF COAST (domestic)—

U. S. Motor grades:		
Below 60 octane		.05
60-64.9 octane	.05¼	.05½
65 octane and higher		.05½

Naphtha

PENNSYLVANIA (inland refineries)—

50-52 450 (blending)		.05
52-54 450 (blending)		.05
54-56 450 (blending)		.05⅛

CHICAGO (based on Group 3)—

50-52 450 (blending)	.04¾	.05
Cleaners' naphtha, 56-58 gr., 200 l.b.p., 20 e.p.	.06⅞	.07
Lacquer diluent, 180 l.b.p., 250 e.p.	.07⅞	.08
Lacquer diluent, 140 l.b.p., 200 e.p.	.08⅞	.09
Rubber solvent, 68-70 gr., 100 l.b.p., 300 e.p.	.06⅞	.07
Stoddard solvent, 300 l.b.p., 410 e.p., over 33° flash	.06⅝	.06½
Pet. thinner, 200-300 l.b.p., 410 e.p., over 33° flash	.06⅝	.06½
V.M.&P. naphtha, 56-58 gr., 190-200 l.b.p., 330° e.p.	.06⅞	.07
Petroleum spirits	.05⅞	.06

Natural Gasoline

OKLAHOMA (Group 3)—

Grade 26-70		.04½
Grade 18-55	.04¾	.04¾
Low vapor pressure grade:		
*14 lb., v.p. (max.)	.05½	.05⅝
*12 lb. v.p. (max.)	.05⅝	.06

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

Grade 26-70		.04⅝

NORTH TEXAS—

Grade 26-70	.03⅝	.03⅝
Grade 18-55	.04⅝	.04⅝
*14 lb. v.p. (max.)	.04⅝	.05⅛
*12 lb. v.p. (max.)	.05¼	.05⅛

CALIFORNIA—

75-85 375-390	.04½	.05½

*Nominal.

Kerosene

(All kerosene water white)

OKLAHOMA (Group 3)—

41-43	.03⅜	.03½
42-44	.03½	.03⅝

NORTH TEXAS—

41-43		.03¼

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

41-43		.03⅜

ARKANSAS (Ark., N. La., Miss. del.)—

41-43		.03⅜

PENNSYLVANIA (inland refineries)—

45		.04⅝
46		.04⅝
47		.04⅝

CHICAGO (based on Group 3)—

41-43	.03⅜	.03½
42-44	.03½	.03⅝

CALIFORNIA (Pac. Coast market)—

38-40 high burning test	.03¼	.03⅜

NEW YORK (Bayonne, N. J.)—

41-43	.04⅝	.04⅝

GULF COAST (domestic)—

41-43	.04¼	.04½

Petroleum Coke

(Prices per ton f.o.b. Chicago area. Refineries absorb freight to 80 cents a ton.)

Pile run	6.25
Direct from still	7.25
Egg, nut, pea	8.00
Lump	8.75

Furnace Oil

OKLAHOMA (Group 3)—

No. 1 prime white, 38-42	.03⅛	.03⅜
No. 1 straw, 38-40	.03	.03⅛
No. 2 straw, 32-36	.02⅞	.03⅛
No. 2 dark, 32-36	.02⅝	.03
No. 3, 28-32	.02⅝	.02⅞
No. 3, 15 and above, 28-32	.02½	.02⅝

NORTH TEXAS—

No. 1 prime white, 38-42	.03⅛	.03⅜
No. 1 straw, 38-40	.03	.03⅛

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

No. 2, 32-36	.03⅛	.03¼

ARKANSAS (Ark., N. La., Miss. del.)—

No. 2, 32-36		.03⅛
No. 3, 28-32		.03¼

CHICAGO (based on Group 3)—

No. 1 prime white, 38-40	.03⅛	.03¼
No. 1 straw, 38-40	.03	.03⅛
No. 2 straw, 32-36	.02⅞	.03
No. 2 dark, 32-36	.02⅝	.02⅞
No. 3, zero to 15, 28-32	.02⅝	.02⅞
No. 3, 15 and above, 28-32	.02¼	.02½

NEW YORK (Bayonne, N. J.)—

No. 1	.04⅝	.04¾
No. 2	.03⅞	.04
No. 4	.03½	.03⅝

Gas Oil and Fuel Oil

(Gas oil per gal., fuel oil per bbl.)

OKLAHOMA (Group 3)—

U.G.I. gas oil	.02¼	.02½
No. 4, 24-28	.87½	.90
No. 4, 15 and above, 24-28	.75	.80
No. 5	.70	.75
No. 6	.67½	.70
Below 18 fuel oil, industrial	.65	.67½

NORTH TEXAS—

U.G.I. gas oil	.02½	.02⅝
No. 4, 24-28	.87½	.90
No. 5	.72½	.75
No. 6	.67½	.70
Below 18 fuel oil, industrial	.65	.67½

NORTH LOUISIANA (Ark., N. La. and Miss. delivery)—

U.G.I. gas oil	.02⅝	.02¾
10-14 fuel oil, industrial	.75	.80

ARKANSAS (Ark., N. La., Miss. del.)—

10-14 fuel oil, industrial	.60	.65

CHICAGO (based on Group 3)—

U.G.I. gas oil	.02¼	.02⅜
No. 4, 24-28	.87½	.90
No. 4, 15 and above, 24-28	.72½	.77½
No. 5, 18-22	.62½	.65
No. 6, 10-16	.52½	.55

Fuel oils of more than 40 cold test generally 5 to 15 cents per bbl. in these areas.

PENNSYLVANIA (inland refineries)—

36-40	.04	.04⅛

CALIFORNIA—

Los Angeles:

30-34 gas oil, per bbl.	1.05	1.25
27 plus Diesel	1.05	1.25
27 plus Diesel (bunkers)	1.25	1.30
12-16 (bunkers at tidewater)	.87	.95
10-16 (cargo lots)	.80	.92
12-17 (tank cars)	.60	.95

San Joaquin Valley:

10-18 (tank cars)	.60	.75

San Francisco:

27 plus Diesel, per bbl.		1.25
27 plus Diesel (bunkers)		1.35
10-16 (bunkers)		1.00

GULF COAST—

28-30 gas oil		.03¼
28-30 Diesel (bunkers)		1.70
Bunker C (bulk cargoes)		.70
Bunker C (bunkers)		.80

NEW YORK (Bayonne, N. J.)—

27 plus, gas oil		.04
28-30 Diesel (lighterage 6½ plus per bbl.)		1.65
28-30 Diesel (tank cars)		.04
*Bunker C (to ocean-going ships in N. Y. harbor)		.95
Industrial fuel (tank cars)		.03¾

*Lighterage charge 5c bbl. additional.

Neutral Oil

(Vis. at 100° F. except Pennsylvania and color N.P.A.)

OKLAHOMA (Group 3)—

Zero to 10 Cold Test:

150-3		.10
180-3		.11¼
180-4		.10¾
200-3		.11¾
200-4		.11¼
240-3		.13¾
240-4		.13¼
280-3		.14¾
280-4		.14
300-3½		.15¼
400-3½		.16
100-2 paraffin oil		.05¾

15-20 Cold Test:

200-3		.10¾
200-4		.10¼
240-3		.12¾
240-4		.12¼
280-3		.13¾
280-4		.13

GULF COAST—

Pale Oils:

200-3	.07	.07⅛
300-3	.07½	.08
500-3½	.08⅛	.09
750-3½	.09	.09¼
1,200-3½	.09½	.09¾
2,000-4	.09¾	.10

Red Oils:

200-5-6	.07	.07¼
300-5-6	.07¼	.07½
500-5-6	.08	.08½
750	.08½	.09
1,200-5-6	.09¼	.09½

CALIFORNIA (moving to dom. market)

Pale Oils:

100-2½-3	.07½	.07¾
200-2½-3	.08	.08⅛
300-3-3½	.08¾	.09¾
350-3-4	.10¼	.10¾
400-3-4	.11½	.12
450-3-4	.12¼	.12½
550-3-4	.12¾	.13¼
600-3-4	.13¾	.13½

Red Oils:

200-4-5	.08¼	.08¾
300-5-6	.08¾	.09
350-5-6	.09¾	.10
400-5-6	.10¼	.10½
450-5-6	.10¾	.11
500-5-6	.11	.11¼
600-5-6½	.11½	.12¼
700-6½ plus	.12½	.12¾
750-6½ plus	.13	.13¼
900-6½ plus	.13¼	.13½

PENNSYLVANIA—

150 vis. at 70° F., color, 400-405 flash:		
Zero pour test	.20½	.21
10 pour test	.19½	.20
15 pour test	.19	.19½
25 pour test	.18	.18½
180 vis. at 70° F., 3 color:		
25 pour test	.21	.21½
200 vis. at 70° F., 3 color:		
Zero pour test	.25	.25½
10 pour test	.24	.24½
15 pour test	.23½	.24
25 pour test	.22½	.23

Bright and Steam Refined

OKLAHOMA (Group 3)—

Bright Stocks:

190-200 D, 15-25		.19⅛
150-160 D, 0-10		.16⅛
150-160 D, 15-25		.16
150-160 E, 15-25		.15½
100-110 D, 0-10		.15⅝

Steam refined:

630 green (treated)		.09½
600 light green, untreated		.08⅝
600 dark green, untreated	.05	.06

PENNSYLVANIA—

Bright Stocks (Pennsylvania grade, No. 8 color, 145-50 at 510; 540-550 flash):

10 pour test	.21½	.22
15 pour test	.20½	.21
20 pour test	.19½	.20
25 pour test	.18½	.19

Steam refined:

600	.09½	.10
650	.11	.11½
600 Pennsylvania flash	.12	.12½
630 flash	.17	.17½
600 Warren E filtered	.13	.13¾

Wax and Petrolatum

(Prices per pound)

OKLAHOMA (Group 3)—

124-126 (a.m.p.) w.c. scale	.02	.0205

PENNSYLVANIA (inland refineries)—

122-124 (a.m.p.) w.c. scale	.0205	.021
124-126 (a.m.p.) w.c. scale	.0205	.021

NEW YORK—

Wax in bags fully refined:

123-125 (a.m.p.) wax		.0420
125-127 (a.m.p.) wax		.0430
128-130 (a.m.p.) wax		.0455
130-132 (a.m.p.) wax		.0490
133-135 (a.m.p.) wax		.0510
135-137 (a.m.p.) wax		.0565
124-126 (a.m.p.) w.s.	.0200	.0210
124-126 (a.m.p.) y.s.	.0200	.0205

Petrolatum in barrels, carload lots:

Dark green		.01⅞
Amber	.02⅝	.03
Extra amber	.03	.03⅛
Lily white	.06⅝	.06⅝
Snow white	.07⅜	.07⅝
Cream	.05⅝	.05⅝

CHICAGO (f.o.b. switching district; carload lots in bags, add 3¢ for a.m.p.)

122-124 (a.s.t.m.) wax	.0440	.0450
125-127 (a.s.t.m.) wax	.0465	.0475
127-129 (a.s.t.m.) wax	.0480	.0490
*130-132 (a.s.t.m) wax	.0520	.0530
*132-134 (a.s.t.m.) wax	.0545	.0555

*Prices applicable for wax shipped in bulk or bag.

Export Prices

GASOLINE

GULF COAST—

U. S. Motor		.04¾
60-62 400	.04¾	.05
61-63 390		.05⅛
64-66 375	.05¼	.05⅝

LOS ANGELES—

U. S. Motor grades:

53-55 octane		.04
55-65 octane	.04	.04¼
65-67 octane	.04¼	.04½
67-69 octane	.04½	.04¾
Above 69 octane	.04¾	.05
58-60 400 endpoint	.04½	.05

KEROSENE

GULF COAST—

41-43 prime white		.03⅜
41-43 water white	.03⅜	.04
44 water white		.04¼

LOS ANGELES—

41-43 water white	.04¼	.04¾

LUBRICANTS

(Pennsylvania Grade)

NEW YORK (f.a.s. in bbls.)—

Cylinder Stocks:

600 Warren E	.18½	.19
600 S.R. unfiltered	.16½	.17
650 S.R. unfiltered		.18
600 flash S.R.	.19	.19½
630 flash S.R.	.23	.23½

Bright Stocks:

8 color		.25½
6½ plus colors in dilution		.25

NEUTRAL OIL

200-3 color		.23½
150-3 color		.24½

PARAFFIN WAX

NEW YORK (prices per pound)—

123-125 a.m.p.		.035
125-127 a.m.p.		.03625
128-130 a.m.p.		.03875
130-132 a.m.p.		.04125
133-135 a.m.p.		.04625
135-137 a.m.p.		.04875
Crude scale:		
124-126 w.s.	.0200	.0205
124-126 y.s.	.0195	.02

Chicago Markets

CHICAGO, Oct. 14.—Despite presence of a certain amount of spottiness in tank car prices, the refinery gasoline market is reasonably firm, aided by good autumn consumption. Offerings of low grade motor fuel have increased a little in this immediate area. There is no immediate indication tank wagon and service station price cutting will abate, although stabilization work continues on a large scale, in an effort to patch up conditions especially bad in the large cities and which are resulting in the sacrifice of much profit on a large share of the total gallonage in the middle western territory. The price cutting, though, seems about at a standstill, and does not appear to be spreading much farther.

Some jobbers are ordering out gasoline on a little more liberal scale, on the theory the price structure has held firm for so long it has given indication of its ability to weather any storm and hence there is less speculation in ordering now. On the other hand, many jobbers are still keeping their stocks extremely low and ordering only when absolutely essential. Many refiners supplying the trade in this part of the country have been extremely short of gasoline for their own and their customers' needs, with the result their buying from other refiners has been not so much to impart a continuing good tone to the tank car market but to take care of their actual needs.

Crude Oil Prices

Oklahoma, Kansas, North Central and East Central Texas

Corsicana (heavy) (June 17, 1933)	$ .80
East Texas	$1.00
Other fields	(See gravity table)

West Texas

Crane Upton, Crockett, Howard, Glasscock, Mitchell (Sept. 29, 1933)	$ .70
Ector, Winkler and Pecos Counties and Lea County, New Mexico (Sept. 29, 1933)	.75
Pecos County, Yates shallow Pool (Sept. 29, 1933)*	.65
Jones and Fisher Counties*	(See gravity table)

Rocky Mountain States

Iles, light (Sept. 29, 1933)	$ .96
Iles, heavy (Sept. 29, 1933)	.90
Florence, Colo. (June 17, 1933)	.90
Fort Collins and Wellington, Colo., (June 17)	(See Salt Creek prices)
Big Muddy (Sept. 29, 1933)	$1.01
Frannie, light (May 1, 1934)	.70
Frannie, heavy (Sept. 29, 1933)	.62
Salt Creek and LaBarge (Sept. 29, 1933)	(See Stanolind Mid-Continent price schedule)
Grass Creek, light (Sept. 29, 1933)	$1.18
Grass Creek, heavy (Sept. 29, 1933)	.62
Elk Basin (Sept. 29, 1933)	1.18
Rock Creek (Sept. 29, 1933)	1.02
Lance Creek (Dec. 16, 1932)	.92
Hudson (June 2, 1931)	.65
Lost Soldier (Sept. 30, 1933)	.88
Hamilton Dome, all grades (Feb. 16, 1935)	.57
Torchlight (Sept. 29, 1933)	1.18
Greybull (Sept. 29, 1933)	1.18
Pondera (Sept. 29, 1933)	1.25
Sunburst (July 19, 1935)	1.20
Cat Creek, Montana	1.07
Hogback (Sept. 29, 1933)	1.11
Lea County, N. Mex. (Sept. 29, 1933)	.75
Maljamar (Sept. 29, 1933)	.70
Artesia-Jackson (Dec. 1, 1933)	.75

Gulf Coast

Grade A and Grade B specification discontinued by leading buyers. (See gravity table)

Hardin (Aug. 8, 1935)	$ .93
Tomball (see note)*	1.15
Livingston (Sept. 29, 1933)†	1.00
Cleveland (Jan. 11, 1934)	1.00
Greta (June 29, 1935)	.80
Refugio, light	(See gravity table)
Refugio, heavy (June 29, 1935)‡	.80
Conroe	(See Conroe gravity table)
Markham and High Island	(See Gulf Coast gravity table)
Bosco, La. (Jan. 18, 1935)§	$ .90

Anahuac and Dickinson posted by Humble August 20, 1935, price of 94 cents per barrel on 30-30.9 gravity with 2 cents per degree increase with top 40 gravity $1.14.

Note—Tomball, effective September 29, by Humble Oil & Refining Co. and October 2 by Magnolia Petroleum Co., and November 10 by Stanolind Crude Oil Purchasing Co.

*Greta posted by Texas Co. †Shell Petroleum Corp. ‡Refugio heavy by Humble Oil & Refining Co. Cleveland and Hardin posted by Magnolia Petroleum Co. §Bosco posted by Pure Oil Co.

North Louisiana and Arkansas

Smackover, Ark. (all grades)	$ .70
Tullos, Urania, La. (Jan. 13, 1934)	.87
Nevada, Ark. (Sept. 29, 1933)	.60
East El Dorado (Sept. 29, 1933)	.70
Converse, La. (Mar. 17, 1934)	1.03
Elm Grove, La. (Sept. 29, 1933)	.75
Holly, La. (Nov. 17, 1934)	1.03
Pleasant Hill, La. (Mar. 17, 1934)	1.03
Zwolle, La. (Mar. 17, 1934)	1.03
Champagnolle, Ark. (Mar. 17, 1934)	.81
Lisbon, Ark. (Mar. 17, 1934)	1.03
Stephens, Ark. (Sept. 29, 1933)	.70
Urbana, Ark. (Mar. 17, 1934)	.60
Other fields	(See gravity table)

Middle Western States

OHIO OIL CO.

Lima (Feb. 1, 1935)	$1.15
Illinois (Jan. 5, 1934)	1.13
Princeton, Ind. (Jan. 5, 1934)	1.13
Plymouth	Shut in
Midland, Mich. (Sept. 30, 1933)*	$1.02
West Branch, Mich.	.86
Oceana, Mich. (Oct. 5, 1933)	.90
Somerset, Ky. (May 20, 1935)	1.13
Western Kentucky (May 22, 1935)	1.13

*Posted by Pure Oil Co. and Simrall Pipe Line Co. Producers Pipe Line Co. pays 5 cents per barrel over Pure Oil Co.'s posted prices. West Branch, Mich., posted by Simrall Pipe Line Co. Somerset, Ky., crude purchased by Ashland Refining Co., Ashland, Ky., and posted prices includes premium. Oceana posted by Old Dutch Refining Co. and Naph-Sol Refining Co.

South Central and Southwest Texas

Darst Creek	$ .87
Mirando (June 29, 1935)	.75
Luling (Sept. 29, 1933)	.75
Pettus	1.05
Salt Flat	.87
Lytton Springs (Sept. 29, 1933)	.95
Duval County (June 29, 1935)	.75
Saxet (June 29, 1935)	.80
Port Lavaca (July 1, 1935)	.80

Eastern States

TIDE WATER PIPE CO.
(Effective July 16, 1935)

Bradford, Pa.	$1.94
Allegany, N. Y.	1.94

SOUTH PENN OIL CO.
(Effective July 16, 1935)

Pennsylvania Grade Oil in National Transit Lines (Bradford Field)	$1.93
Pennsylvania Grade Oil in Southwest Pennsylvania Lines (Sept. 6, 1935)	1.72
Pennsylvania Grade Oil in Eureka Pipe Line lines	1.62
Pennsylvania Grade Oil in Buckeye Pipe Line lines	1.52
Corning Grade Oil in Buckeye Pipe Line Co.'s lines	1.32

PENNZOIL CO.
(Effective July 16, 1935)

Pennsylvania Grade Oil in National Transit Lines:	
Group A (Includes Cochran, Franklin, Hamilton and Doolittle districts.)	$1.92
Group B (Includes Titusville district.)	1.91
Group C (Includes Turkey and Tidioute districts.)	1.90
Group D (Includes Bear Creek and Porkey districts.)	1.89
Group E (Includes Eldeneau, Bull Creek, Rough Run, Carbon, Dipner, Bredlin, McJunkin, Jameson, Kennerdell, Emlenton, Tiona, Lacey and Kinzua districts.)	1.86

Price depends on length of pipe line haul to plant at Oil City.

PURE OIL CO.
(Effective July 16, 1935)

Cabin Creek, W. Va.	$1.62
Bradford Hollow, W. Va.	1.62
Kelly Creek, W. Va.	1.62

Canada

Ontario (Sept. 9, 1933):	
Petrolia*	$2.10
Oil Springs	2.17
Turner Valley (May 21, 1934):†	
Clear naphtha	2.55
Discolored naphtha	2.37
Crude oil, 50 gravity	2.19
Crude oil, 45 to 49.9	2.07
Crude oil, 40 to 44.9	1.50

*Imperial Oil, Ltd. †Imperial Oil, Ltd., and Regal Oil & Refining Co.

Mexico

Panuco*	$.845

*F.o.b. ship, based on September transactions and exclusive of production and export taxes and bar dues.

Crude Prices by Gravities

Gravity—	1 Oklahoma and Kansas	2 North Texas, Central Texas and East Central Texas	3 North Louisiana and Arkansas	4 Gray County, Texas	5 Carson, Hutchinson and Moore Counties, Texas	6 Conroe, Texas	7 Salt Creek, Wyo.	8 Gulf Coast, Texas and Louisiana	9 Gulf Coast, Texas and Louisiana	10 Cotton Valley, Louisiana
Below 20	....	....	....	....	....	....	....	$.82	$.82	....
20-20.9	....	....	....	....	....	....	....	.84	.84	....
21-21.9	....	....	....	....	....	....	....	.86	.86	....
22-22.9	....	....	....	....	....	....	....	.88	.88	....
23-23.9	....	....	....	....	....	....	....	.90	.90	....
24-24.9	....	....	....	....	....	....	....	.92	.92	....
Below 25	*$.76	....	....	....	....	....	....	....	....	$.70
25-25.9	*.78	....	....	....	....	....	....	.94	.94	.72
26-26.9	*.80	....	....	....	....	....	....	.96	.96	.74
27-27.9	*.82	....	....	....	....	....	....	.98	.98	.76
28-28.9	*.84	....	....	....	....	....	....	1.00	1.00	.78
Below 29	.84	$.79	$.79	....	....	....	$.84	....	....	....
29-29.9	.86	.81	.81	....	....	....	.86	1.02	1.02	.80
30-30.9	.88	.83	.83	....	....	....	.88	1.04	1.04	.82
31-31.9	.90	.85	.85	....	....	....	.90	1.06	1.06	.84
32-32.9	.92	.87	.87	....	....	....	.92	1.08	1.08	.86
33-33.9	.94	.89	.89	....	....	....	.94	1.10	1.07	.88
34-34.9	.96	.91	.91	....	....	....	.96	1.13	1.08	.90
Below 35	....	....	....	$.79	$.69	....	....	....	....	....
35-35.9	.98	.93	.93	.81	.71	$1.09	.98	1.12	1.09	.92
36-36.9	1.00	.95	.95	.83	.73	1.11	1.00	1.12	1.10	.94
37-37.9	1.02	.97	.97	.85	.75	1.13	1.02	1.12	1.11	.96
38-38.9	1.04	.99	.99	.87	.77	1.15	1.04	1.12	1.12	.98
39-39.9	1.06	1.01	1.01	.89	.79	1.17	1.06	1.12	1.13	1.00
40 and over	1.08	1.03	1.03	.91	.81	1.19	1.08	1.12	1.14	1.02

STANDARD OIL CO. OF CALIFORNIA AND UNION OIL CO. OF CALIFORNIA

For current purchases of crude oil at the well in California (unless otherwise specified). All gravities above those quoted take lowest price offered in that field. Standard Oil Co. prices effective August 29, 1935, and Union Oil Co. prices August 30, 1935.

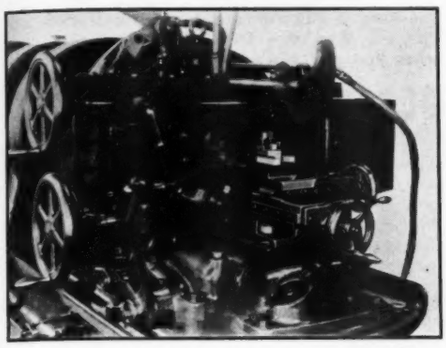
Gravity—	Signal Hill	Seal Beach, Alamitos Heights	Huntington Beach	Inglewood	Playa Del Rey	Olinda-Brea Canon	Athens, Rosecrans, Domingues	Elwood Terrace	Torrance	Richfield	Kettleman Hills	Whittier, La Habra	Montebello	Coyote Hills	Santa Fe Springs	Newhall, McKittrick, Kern River	Mountain View	Midway-Sunset, Elk Hills, Buena Vista Hills	Lost Hills	Coalinga	Wheeler Ridge	East Coyote	Santa Paula	Orcutt
14-14.9	$.65	$.65	$.65	$.65	$.65	$.65	....	....	$.65	$.65	....	$.65	$.65	$.65	....	$.57	$.57	$.57	$.57	$.57	$.57	$.65	$.57	....
15-15.9	.65	.65	.63	.63	.61	.63	....	....	.63	.63	....	.63	.63	.63	....	.57	.57	.57	.57	.57	.57	.63	.57	....
16-16.9	.63	.63	.61	.61	.59	.61	....	....	.61	.61	....	.61	.61	.61	....	.57	.57	.57	.57	.57	.57	.61	.57	$.57
17-17.9	.61	.61	.59	.59	.55	.59	....	....	.59	.59	....	.59	.59	.60	....	.57	.57	.57	.57	.57	.57	.59	.57	.57
18-18.9	.60	.60	.57	.57	.52	.57	....	....	.58	.57	....	.57	.58	.59	....	.57	.57	.57	.57	.57	.57	.57	.57	.57
19-19.9	.58	.58	.55	.56	.49	.56	....	....	.57	.56	....	.55	.57	.58	....	.57	.57	.57	.57	.56	.56	.55	.57	.56
20-20.9	.57	.57	.53	.55	.46	.55	....	....	.56	.55	....	.54	.56	.57	....	....	.57	.57	.57	.55	.55	.54	.56	.55
21-21.9	.56	.56	.52	.54	.43	.54	....	....	.55	.54	....	.53	.55	.56	$.57	....	.56	.56	.56	.54	.54	.53	.55	.54
22-22.9	.55	.55	.51	.53	.40	.53	....	....	.54	.53	....	.52	.54	.55	.56	....	.56	.56	.56	.53	.53	.52	.54	.53
23-23.9	.54	.54	.50	.52	.39	.52	$.55	....	.53	.52	....	.51	.53	.54	.55	....	.55	.55	.55	.52	.52	.51	.53	.52
24-24.9	.53	.53	.49	.51	.38	.51	.54	....	.52	.51	....	.50	.52	.53	.54	....	.54	.55	.54	.51	.51	.50	.52	.51
25-25.9	.52	.52	.48	.50	.37	.50	.53	....	.51	.50	....	....	.51	.52	.54	....	.53	.54	.54	.50	.50	....	.51	.50
26-26.9	.51	.51	.47	.49	.36	.49	.52	....	.50	.49	....	....	.50	.51	.53	....	.52	.53	.53	....	....	....	.50	....
27-27.9	.50	.50	.46	.48	....	.48	.51	....	....	.48	....	....	....	.50	.52	....	.51	.52	.53	....	....	....	.49	....
28-28.9	.49	.49	.45	.47	....	.47	.50	....	....	.47	....	....	....	.49	.51	....	.50	.51	.52	....	....	....	.48	....
29-29.9	.48	.48	.44	.46	....	....	.48	....	....	.46	....	....	....	.48	.50	....	.49	.50	.51	....	....	....	.47	....
30-30.9	.47	.47	.43	.45	....	....	.46	....	....	....	....	....	....	.47	.49	....	.48	.49	.50	....	....	....	.46	....
31-31.9	.46	....	....	.44	....	....	.45	....	....	....	....	....	....	.46	.48	....	.47	.48	....	....	....	....	....	....
32-32.9	....	....	....	.43	....	....	.44	....	....	....	....	....	....	.45	.47	....	.46	.47	....	....	....	....	....	....
33-33.9	....	....	....	....	....	....	....	$.50	....	....	$.62	....	....	.44	.46	....	.45	.46	....	....	....	....	....	....
34-34.9	....	....	....	....	....	....	....	.49	....	....	.61	....	....	.43	.45	....	....	....	....	....	....	....	....	....
35-35.9	....	....	....	....	....	....	....	.48	....	....	.60	....	....	....	.44	....	....	....	....	....	....	....	....	....
36-36.9	....	....	....	....	....	....	....	.47	....	....	.59	....	....	....	.43	....	....	....	....	....	....	....	....	....
37-37.9	....	....	....	....	....	....	....	.46	....	....	.58	....	....	....	.42	....	....	....	....	....	....	....	....	....
38-38.9	....	....	....	....	....	....	....	....	....	....	.57	....	....	....	.41	....	....	....	....	....	....	....	....	....
39-39.9	....	....	....	....	....	....	....	....	....	....	.56	....	....	....	....	....	....	....	....	....	....	....	....	....

East Coyote, Santa Paula and Orcutt prices posted by Union Oil Co. Playa Del Rey prices subject to 5-cent gathering charge. Elwood Terrace prices f.o.b. ship. Union Oil Co. pays 52 cents for 11-13.9 gravity oil in Coalinga, Kern River, Mount Poso, McKittrick, Midway-Sunset, Elk Hills and Buena Vista Hills.

NEW OR IMPROVED EQUIPMENT

Beveling and Facing Device Is Put on Market by Landis

Landis Machine Co., Waynesboro, Pa., has put on the market a beveling and facing attachment designed for the new type of screwed joint em-



ployed in connection with heavy wall piping used in oil refineries, chemical manufacturing plants, etc., and subject to unusually high pressures and severe temperature changes.

This type of joint has a Whitworth straight pipe thread and employs a gasket, requiring that, in addition to the thread-cutting operation, the pipe be faced and beveled 20 degrees on the inside diameter and that the pipe be recessed at the shoulder of the thread. A primary requirement is a smooth finish and absolute concentricity of all machined surfaces.

To combine the several machining operations with the cutting of the thread the Landis Machine Co. developed the facing and beveling attachment for use on the Landis pipe-threading and cutting machine. While the machine itself is of the standard type the attachment is built directly into the machine, and the machine is also fitted with a leadscrew. The illustration shows a close-up view of the cross-rail of the Landis machine with the attachment in place.

The facing and beveling attachment is equipped with adjustable cutting tools whose setting remains constant once properly adjusted. It has a universal adjustment and will face and bevel all diameters of pipe within the range of the machine. The leadscrew provides the positive feed necessary to insure threads of correct form and lead.

Freeman-McFadden Process Is Available to Oil Industry

The Freeman-McFadden process for cleaning heat exchangers, tanks and other equipment subject to the accumulation of oil residua which was recently adopted by the U. S. Navy, is now available to the oil industry according to an announcement of the past week. It is expected that the cleaning process will have applications in the producing, refining, transportation and marketing branches of the oil business. Speed, economy and safety in cleaning oil from all types of containers is claimed for the process. Besides its cleaning action the process is gas-freeing and removes all trace of the explosive oil fumes from the interior. Any condensed vapor is removed by means of a ventilating fan.

Another safety feature is that men are not required to enter the tank. Time saving constitutes one of the chief recommendations which the inventor makes. The actual vaporizing of the average receptacle requires about 20 minutes to half an hour, exclusive of the time it takes to set up the apparatus, approximately an hour and a half. Preceding the operation there is the usual ventilation of the receptacle and subsequent to it the removal of sludge.

After the tank has been emptied of oil, the vapor is injected without previous steaming or washing down. The absence of steaming eliminates the danger of structural strains which are frequently caused by high temperatures. Tank ships can be cleaned at sea instead of being held in drydocks for days.

The treatment will remove tar, asphalt and other sediments from tanks and render them fit to carry edible commodities such as olive oil, vegetable oils and animal fats. Setham Corp., 122 East Forty-second Street, New York, is the licensing agent for the process.

Stainless Steel Welding Rod

A new stainless steel welding rod for welding chrome-nickel steels of the 18-8 type has been announced by the Linde Air Products Co., 30 East Forty-second Street, New York. This Oxweld No. 28 columbium-treated 18-8 welding rod is offered as an important addition to the Oxweld line. It simplifies the fabrication of products from 18-8 stainless steel and improves the corrosion resistance of the fabricated joint areas. The outstanding feature is the inclusion of a definite quantity of the element columbium. Because of this, products fabricated from "treated" or "stabilized" 18-8 steel by welding with Oxweld No. 28 rod have full corrosion resistance and heat resistance after being welded. No heat treatment is necessary.

Men Widely Known in the Equipment Field

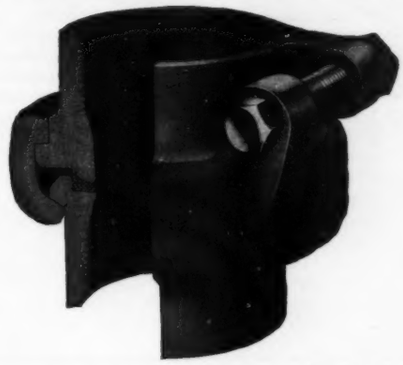
L. A. Rawson, formerly manager of the derrick division of Emsco Derrick & Equipment Co. for California, Mid-Continent and export, has been

L. A. RAWSON

made vice president and manager of the structural division, according to announcement by E. M. Smith, president and general manager. Mr. Rawson has been associated with Emsco since its organization and served as chief engineer in the construction of the original Los Angeles plant. In 1926 he designed and built the Houston, Tex., plant.

Makes a Seat Notwithstanding Dirt or Misaligned Pipe

Thornhill-Craver Co., Inc., 3016 Polk Avenue, Houston, Tex., is now on full production of the new one-bolt coupling. This appliance adds ad-



vantageous features to the original Unibolt, which permits easy and quick connection or loosening of joints in manifold or line joints.

This new coupling is made of malleable iron, and is equipped with a resilient seat ring, which the manufacturer says resists oil and acid, is nonvulcanizing, and is not damaged by dirt or grit, which becomes embedded in the packing. The ability of this seat-ring readily to take dirt or grit prevents failure to make a seat when the coupling is assembled, although it may be dirty.

Another feature is that it makes up to a proper seat in spite of misalignment of the pipe. The design of both the original high-pressure one-bolt coupling and the new malleable one-bolt coupling is such that all of the seating radii are swung from a common center and must form a perfect seat in any position. This feature provides a fast, leak-proof joint safely under varying temperatures and pressures.

The single bolt serves only to draw the self-locking tapered shelves together, and applies a tremendous pressure on seats and seal ring, the pressure applied to the bolt being multiplied 6½ times through the tapered shelves.

Rubber-Covered Gasoline Hose

A new rubber-covered, smooth-bore gasoline tank hose has been introduced by B. F. Goodrich Co., Akron, Ohio, which, it is claimed, increases volume of flow by 15 to 18 per cent. It is available with or without wire reinforcement. In all other respects construction is the same, consisting of a smooth-bore tube, two braids of yarn of the hawser-cord type, and a rubber cover. Gasoline-resisting compounds are used throughout. Wire reinforcement consists of a coil of wire laid between the two braids. Hose is furnished in any lengths up to 50 feet of 1½-inch, 2-inch, 2½-inch and 3-inch.

B.S.&B. Durable Wood Tanks

Black, Sivalls & Bryson, Inc., Oklahoma City, Okla., have prepared an attractive mailing piece, designated as "Durable Tank Letter No. 2," which tells the story pictorially of details concerning the company's vapor-pressure and gas-tight wood tanks. Actual photographs, instead of the customary electrotype illustrations, are used. The pictures are fully discussed in the text.

How diamond-set bits take limestone cores in test wells in British Columbia with a rotary outfit using B&B lines, is told in the current number of the Yellow Strand, published by Broderick & Bascom Rope Co., St. Louis, Mo.

Bureau of Mines' Report on Petroleum for August

Crude Petroleum: The production of crude petroleum in August, 1935, amounted to 84,816,000 bbls., or a daily average of 2,736,000 bbls. This average is 21,600 bbls. below that of July, 7 per cent above the average of a year ago, and 81,000 bbls. above the recommendation of the Bureau of Mines for August. The excess of daily average production over the recommendation in August (81,000 bbls.) was slightly below the excess in California, indicating that production east of California was below the recommended level for the first time since November, 1933.

Production in all the leading states except California and Louisiana declined in August. The daily average output in California increased to 600,100 bbls. following the breakdown of proration in some fields. Production in Louisiana continued to set new records; the state was also in the limelight because of the developments of the new field at Rodessa. Production in East Texas showed little change, but declines in other districts brought the daily average for the State down to 1,059,600 bbls. from 1,074,100 bbls. in July.

Withdrawals from crude oil stocks continued heavy as refinery operations were maintained at high levels. Daily average crude runs in August were 2,729,000 bbls., which is slightly below the average in July, but sufficiently in excess of production to be the chief factor in reducing stocks of refinable crude oil from 329,351,000 bbls. on July 31 to 324,966,000 bbls. on August 31.

Refined Products: Despite an increase in the yield of gasoline by cracking, the average declined from 45.3 per cent in July to 44.8 per cent in August. The demand for motor fuel continued to fulfill the most optimistic estimates and to establish new records. The domestic demand for motor fuel in August, 1935, was 42,901,000 bbls., an increase of 10 per cent over the domestic demand in August, 1934. Exports of motor fuel in August fell considerably short of the levels of June and July, yet the total of 2,822,000 bbls. was 30 per cent higher than a year ago. Stocks of finished and unfinished gasoline, reflecting the heavy movement from refineries and terminals, declined 4,746,000 bbls. in August, or from 56,446,000 bbls. on July 31 to 51,700,000 bbls. on August 31. The latter was not far above the objective as of September 30.

The demand for fuel oil, which had been registering the usual seasonal decline, showed a marked increase in August.

According to the Bureau of Labor Statistics, the price index for petroleum products for August, 1935, was 52.4, compared with 52.9 for July, 1935, and 51.6 for August, 1934.

The refinery data of this report were compiled from refineries having an aggregate daily recorded crude oil capacity of 3,690,000 bbls. Those refineries operating during August, 1935, at 74 per cent of their capacity, compared with an operating ratio of 74 per cent in July.

Group Three Gasoline Flouts Seasonal Traditions

(Continued from Page 96)

the losses involved in converting his 26-70 into these highly stabilized grades. There is no likelihood of the quotations on 12- and 14-pound natural possessing much more than mere narratory interest until the price of refined gasoline is higher and that of 26-pound natural lower.

The growing strength in the lubricant group, visible for several weeks, was marked by another rise of a half-cent in bright stocks, with likelihood that neutrals will be lifted to higher levels within a few days, following the action of Pennsylvania refiners.

Kerosene was displaying a slightly better tone. The burning oils were steady, with quotations unchanged. Wax was looking better, with higher prices apparently in prospect.

Nu-Way Service Stations

MUSKEGON, Mich., Oct. 14.—Formation of Nu-Way Service Stations, Inc., a $50,000 Michigan corporation, for western Michigan distribution of gasoline and other petroleum products of the Naph-Sol Refining Co., Muskegon, is announced. Frank H. Emig, former manager of the Cardinal-Dixie Co., whose Muskegon service stations and bulk plant were sold 18 months ago to the White Star division of Socony-Vacuum, is president.

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